2007 Hospital Preparedness Application Narrative - Massachusetts

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Summary

Goal for ASPR FFY 2007: The goal of the Department of Public Health (MDPH) is to work collaboratively with all internal and external partners in order to develop, exercise, and implement an integrated and effective local, regional, statewide and inter-state response plan to public health emergencies.

MDPH will utilize the funds from the ASPR Hospital Preparedness Program (HPP) to build medical surge capability through associated planning, personnel, equipment, training and exercise capabilities at the state and local levels. MDPH will develop medical surge capability by focusing primarily on the Level 1 and selected Level 2 sub-capabilities referenced in the FFY 2007 ASPR Cooperative Agreement, and summarized below. Level 1 Capabilities will be met by August 8, 2008.

In order to accomplish our goal, MDPH will focus our program and project objectives on the five goals prioritized in the new PAHPA legislation – *integration* of public and private healthcare systems with the public health and public safety sectors; enhance the *medical* preparedness, response and surge capacity of the healthcare system; address the needs of *at-risk individuals;* ensure *coordination* of preparedness activities with federal, interstate, interagency, regional, coalition and local partners and maintaining *continuity of operations* in the event of a public health emergency. Individual project objectives summarized below contribute to one or more of these goals.

A major part of the MDPH plan involves provision of the majority of our ASPR funding directly to each of our 74 acute care hospitals via a Memorandum of Agreement (MOA) to achieve specific, measurable, attainable and time framed tasks. For FFY07, these tasks will include deliverables that are essential for meeting Level 1 sub-capabilities. Specific deliverables will include interoperable communications, bed and asset reporting, ESAR-VHP participation, fatality management and evacuation. Level 2 sub-capability hospital deliverables include alternate care site (emergency/infectious disease specialty care unit) planning, pharmaceutical cache availability for workers and families, and training and exercises for personal protective equipment and decontamination. NIMS compliance, plans for at-risk individuals and participation in training and exercises must be incorporated into all Level 1 and Level 2 deliverables. Hospitals will be required to submit evidence of compliance with the four FFY 2006 NIMS compliance requirements in order to be eligible for FFY 2007 ASPR funding. Hospitals must also document that they will meet all Level 1 deliverables and that they will comply with the remaining 13 NIMS FFY 2007 requirements by August 8, 2008 before any budget plans for Level 2 (or other sub-capabilities) will be approved.

MDPH currently fully meets two of the five Level 1 sub-capabilities – interoperable communications and bed status reporting, but must maintain the systems established in previous years in order to remain compliant. New interoperability and reporting requirements recently issued by DHS and HHS in both areas will require additional work in the coming year. Training and exercises are necessary to maintain system and user operational capability and capacity. Bed status reporting is being expanded to include a wider array of medical assets, and the capability of transmitting information and data to other federal, state and local agencies. MDPH is actively involved with state, regional and local public safety agencies in the development of a SAFECOM-compliant statewide 5-year plan for interoperable communications.

MDPH currently meets existing compliance requirements for the ESAR-VHP (MSAR Massachusetts System for Advance Registration of health professionals) program, and is awaiting the imminent release of new ASPR guidelines that will detail the remaining compliance requirements that must be achieved by August 8, 2008. Related project work prioritizes Medical Reserve Corps (MRCs) as a critical resource for recruitment, training and continued engagement of volunteers.

Hospital facility evacuation planning is considered to be partially met at this time. All ASPR participating hospitals in Massachusetts are accredited by the Joint Commission and are therefore required to have horizontal and vertical evacuation plans, but few have exercised these plans. Projects that will address training and exercises are proposed for the coming year, as are projects that will ensure incorporation of the plans into community emergency preparedness plans. MDPH believes that extension of these planning, training and exercise resources to non-participating chronic healthcare facilities is also needed. Full compliance will be achieved by the end of the grant period.

Fatality management planning is a more challenging priority, since primary responsibility for managing a surge in deaths is traditionally a public safety issue in Massachusetts. An Expert Panel will be convened to develop best practice plans for dealing with mass fatality events resulting from either a pandemic scenario or a mass casualty incident. This Expert initiative will involve a broad range of participants at the state and local level, and from the private sector.

Alternate care sites may be listed in this Guidance as a Level 2 priority, however it remains one of the most serious and costly issues which we face given the eventuality of pandemic influenza. Many initiatives are underway to ensure adequate planning and preparation for catastrophic medical surge capacity. The continued development of surge sites (called emergency specialty care units – ESCUs or influenza specialty care units – ISCUs) is ongoing and has direct benefit to having the capacity and capability to respond to a severe weather or mass casualty event in addition to pandemic influenza. Projects related to this capability include finalizing locations for the sites, addressing surge staffing issues, training and exercises.

Due to Massachusetts geographic and climate considerations, mobile medical asset planning for the coming year will focus on identifying regional locations for the receipt of a deployable mobile Federal Medical Station, and on maintaining and exercising deployment of our mobile mass casualty incident regional trailers.

Pharmaceutical cache activities will focus on reporting and assessment of required levels of antibiotics for work force and family member protection. Antivirals may be purchased using 5% of a hospital award, but only after all Level 1 requirements have been met.

Training and appropriate use of personal protective equipment (PPE) and decontamination equipment remains a priority. This year we will be focusing on transitioning to a “train-the-trainer” method for delivering training for both PPE and decontamination. Purchase of additional PPE will be limited to replacements necessary to address specific HVAs and will only

be allowed if the facility documents compliance with all Level 1 requirements. MDPH will continue to support the maintenance and exercising of mass decontamination equipment.

Over-arching capabilities are incorporated into projects throughout the workplan. NIMS compliance and planning for at-risk individuals are core requirements for all hospital MOAs and are incorporated into all training and exercises. Projects proposed for interoperable communications, MSAR and MRC volunteers, evacuations, mass fatality planning, alternate care site planning, PPE and decontamination will address both NIMS usage and at-risk populations.

MDPH has encouraged the formation of hospital and healthcare "partnerships" at the local and regional level. While we are aware that a separate competitive program for funding hospitals partnerships has been developed by ASPR, MDPH has worked closely with our healthcare and public health systems and encouraged the development of partnership applications that complement the state application, and enhance state planning for FFY 2007 ASPR priorities. Incorporation of public health and healthcare partners at the local and grass roots level that receive little or no ASPR funding is crucial to achieving medical surge capacity and capabilities.

On-going statewide committees for surge planning, hospital emergency department crowding, EMS and hospital communication, mass casualty incidents, pandemic planning, MSAR, MRCs, long term care facility emergency preparedness, special and at-risk populations operate under the ASPR HPP. These are being expanded to include Fatality Management and Evacuations this year. Our partner programs within both MDPH and Executive Office of Public Safety convene other committees dealing with education and training, Strategic National Stockpile, mass care, statewide interoperable communications and exercises.

Regional planning - Regional meetings of all hospital and healthcare partners are scheduled monthly in each of the six hospital preparedness regions. This year the pre-existing regional hospital mutual aid agreements will be exercised.

Interstate Coordination - a New England/New York Interstate Planning and Coordination group was established in 2003 to coordinate all aspects of the ASPR cooperative agreement, and is being expanded to include CDC counterparts. Monthly regional conference calls and quarterly meetings are scheduled. During the coming year, each state will contribute towards funding a contract for interstate coordination of key issues for cross-border planning, communications and exercises.

Interagency coordination occurs through quarterly meetings of the HSPD-8 Advisory Committee/Implementation Team. This committee includes officials directly responsible for the administration of DHS grants and CDC and ASPR cooperative agreements. Functions include coordination and collaboration on annual grant applications and development of implementation plans.

Description of Organization

The Massachusetts Department of Public Health (MDPH) is a major department within the Executive Office of Health and Human Services, with over 3000 employees and an annual budget of over $550 million. There are currently nine Bureaus and a number of Divisions, Offices and Programs within the departmental organizational structure. Over 120 sets of regulations and statutes lay the framework for much of the Departments broad-based responsibilities and authority to take actions relative to the Department's mission, which is to protect the health of the public. The primary MDPH goal is "**Helping People Lead Healthy Lives In Healthy Communities".** An overall listing and description of all Bureaus, Divisions and programs within MDPH can be found at found at http://www.mass.gov/dph/dphorg2.htm. Decision making authority within MDPH rests with the Department of Public Health Commissioner, John Auerbach - http://www.mass.gov/dph/comm/comm.htm. In some cases, such as the adoption of regulations and the granting or certain licenses, statutes require actions be taken by both the Commissioner and the 15-member Public Health Council which can be found at http://www.mass.gov/dph/phc/phc.htm.

Following the events of September 11, 2001 attention has been focused on the ability of hospitals, healthcare systems, public health and emergency medical systems (EMS) to respond to events such as terrorist acts, natural disasters and pandemic diseases. In an effort to improve hospital and health system preparedness, the United States Department of Human Services (DHHS), Health Resources and Service Administration (HRSA), National Bioterrorism Preparedness Program provided funding to the Commonwealth of Massachusetts. This program was transferred to the DHHS Assistant Secretary for Preparedness and Response (ASPR) in 2007. This funding, administered by a cooperative agreement through HRSA and now ASPR has resulted in enhancements in the MDPH capacity and capability to assess, develop and implement regional preparedness plans, protocols, educational programs and training for hospitals, emergency departments, ambulatory care, health centers, emergency medical services (EMS), the Massachusetts/Rhode Island Poison Control Center and other collaborating health care entities.

Massachusetts is also the recipient of emergency preparedness funding from the Centers for Disease Control and Prevention (CDC) cooperative agreement. The elements of preparedness and response funded by this cooperative agreement are dedicated to preparedness planning and readiness assessment; surveillance and epidemiology laboratory capacity; communications and information technology; health risk communication; and education and training. The applications to ASPR and CDC are drafted in a collaborative manner, and program coordination continues throughout the implementation stages of both cooperative agreements. In 2002, MDPH established a senior management team to head the coordinated development of all assessment, planning and implementation activities pursuant to HRSA (now ASPR) and CDC cooperative agreements. In 2004, a new Center (now Bureau) for Emergency Preparedness was formed to enhance this coordination between all MDPH emergency preparedness programs and activities and to provide additional linkage with programs funded through the Department of Homeland Security (DHS) and the state Executive Office of Public Safety. A multi-agency HSPD-8 Implementation Team formed in FFY 2005 ensures on-going coordination and collaboration between public health and public safety agencies.

Recent changes in MDPH organizational structure have resulted in a plan to further strengthen

the coordination between the public health, healthcare, and public safety emergency preparedness and homeland security planning and response functions, and a full-time director for the MDPH Emergency Preparedness Bureau will be hired. Senior Bureau Directors who have led the CDC and ASPR program efforts since their inception in 2002 with over 25 years in the agency continue to manage the programmatic aspects of the cooperative agreements in close collaboration with the Emergency Preparedness Bureau interim Director, who is also the ASPR Hospital Preparedness Coordinator. The MDPH serves as the lead agency in a broad based coalition of agencies and organizations dedicated to strengthening and maintaining health care and public health related response capabilities, and is the lead agency for ESF 8 coordination.

Evidence of MDPH capacity and capability to provide the rapid and effective use of resources needed to conduct the ASPR projects, collect necessary data and evaluate it, and to incorporate the input of our partners at the state and local level have been developed using a series of strategic approaches over the past five years. These strategies have included:

1. **Hospital Planning Regions:** One of the earliest accomplishments was the establishment of six Hospital Emergency Preparedness Planning Regions. While regional EMS planning had been occurring through the five EMS Regional Councils which had existed for over 20 years, no comparable regional planning existed for hospitals or for local public health agencies. The ASPR and CDC projects established coordinated regional mechanisms for hospitals, health centers, clinics and local public health agencies. Regional planning has increasingly been broadened to incorporate all healthcare assets and partner agencies.
2. **Hospital Memoranda of Agreement (MOA)** - use of Hospital MOAs and contracts address and achieve hospital-related performance requirements for the ASPR cooperative agreement. Approximately one-half of the total Award is to be provided this year to individual healthcare facilities in direct grant funded allocations ($4,574,193). Hospital MOAs and contract funding for 2007 will support compliance with the Level 1 and level 2 capabilities described in the ASPR 2007 guidance, and to achieving compliance with the ASPR-identified identified performance measures. Hospital budgets are submitted to and approved by MDPH; and are structured to support regional planning efforts.
3. **Contracted Services** - Contracts have been awarded to support and enhance Community Health Centers, EMS systems, Poison Control, hospital LRN A laboratories, Interoperable Communications, Medical Reserve Corps, ESAR-VHP (MSAR), Data Reporting, Surveillance, Training and Exercises. These contracts provide direct support or essential services for public health and healthcare systems.
4. **Statewide Advisory Committees and workgroups** that include Surge Planning, MSAR, MRCs, Pandemic Planning, Special Populations, Communications, Education and Training, Exercises, Mass Casualty Incidents, and CDC/ASPR/DHS inter- and intra-agency planning. These will be expanded in 2007 to include Fatality Management and Hospital/Healthcare Facility Evacuations. All committees and workgroups are comprised of a broad and diverse membership from federal, state, regional and local government in addition to representatives from all healthcare, public health, medical, legal, behavioral health, mental health, community health, public safety and law enforcement agencies and organizations.
5. **Interstate Coordination** - a New England/New York Interstate Planning and Coordination group was established in 2003 for all aspects of the ASPR cooperative agreement, and is being expanded to include CDC as well as ASPR counterparts.

6. **HSPD-8 Advisory Committee/Implementation Team** - The primary Statewide Advisory Committee includes state officials directly responsible for the administration of DHS grants and CDC and ASPR cooperative agreements - the State Administrative Agency (SAA) Homeland Security Director, ASPR Program Director, and Hospital Preparedness Coordinator, CDC Program Director and the state Public Health Commissioner. In addition, senior program representatives from the following agencies are included: Executive Office of Public Safety, Massachusetts Emergency Management Agency, State Police, Department of Fire Services, National Guard, Regional Transportation Authorities, and the Office of Emergency Medical Services. This team was created in FFY 2005 to look at all federal grants and was responsible for developing the Massachusetts-applicable assessment for the 15 DHS priority scenarios, a statewide capability and gap analysis for each scenario and in 2006 participated in the DHS on-site state review for compliance with the National Response Plan and security reviews for the state nuclear power plants.

Current Status of Sub-Capabilities

1) Interoperable Communication System Current Status - MDPH has established a hospital communications system that connects 74 hospitals and many other healthcare partners horizontally and vertically to the tiered response system. This system includes a push-to-talk device and satellite phone network, hospital capacity website, listservs, emergency contact flash drives and an automated health and homeland alert network. This redundant and interoperable communication system allows connectivity, during an emergency, between other healthcare facilities and state and local health departments, emergency medical services, emergency management agencies, particularly the State Emergency Operation Center, public safety agencies, neighboring jurisdictions and state and federal public health officials.

MDPH currently meets the interoperable communications sub-capability, but must maintain the systems established in previous years in order to remain compliant. New interoperability and reporting requirements recently issued by DHS and HHS will require additional work in the coming year. Training and exercises are necessary to maintain system and user operational capability and capacity. MDPH has created a redundant communications system and plans to continue building out the network components. In addition, MDPH is actively participating in the development of a state 5-year SAFECOM-compliant interoperability plan that includes the primary disciplines covered by the ASPR and CDC cooperative agreements – hospitals, EMS and public health at the state, regional and local levels. Current activities include active MDPH ASPR program director representation on the Massachusetts State Interoperability Executive Committee (SIEC) that is charged through the direction of the Secretary of Public Safety with developing a five-year plan for enhancing interoperable communications in the Commonwealth. The SIEC consists of state officials from key state agencies, communications representatives of the five homeland security regions, and representatives of the major public safety disciplines. These three vital stakeholder groups are working to develop our five-year State Communications Interoperability Plan (SCIP), as well as the application for the upcoming Public Safety Interoperable Communications grant process from the National Telecommunications and Information Administration (NTIA). The NTIA grant will result in enhancements to the overall statewide communications system. Of significance to this

application, focus groups for hospitals, EMS and local public health have been completed to identify current strengths, needs/gaps and recommended areas of improvement across the interoperability continuum – governance, standard operating procedures, technology, training and exercises, and usage.

Over the past five years, MDPH has established communications protocols with the identified technologies and back-up systems when needing to alert all MA hospitals and other healthcare partners of an incident or emergency. MDPH may use all or any of these communication systems when pushing an alert, instructions or any type of message to its healthcare partners.

The following are examples of the equipment, systems and protocols MDPH uses when alerting its partners of an incident or emergency.

1) Nextel and Verizon Phones - MDPH has distributed Nextel and/or Verizon cellular phones to relevant MDPH emergency preparedness and response staff, all hospitals, regional hospital, public health and EMS coordinators, key public safety and other healthcare partners and may use push-to-talk regional call groups to alert responders via direct-connect radio communication.
2) Satellite Phones - MDPH has issued satellite phones to all hospitals, EMS dispatch centers (CMEDS), and EMS Regional Directors to be used as a back up system to other communications options for hospitals, EMS and other healthcare partners. Hospitals and EMS centers are in the process of installing these devices. Satellite phones will be called once a month to ensure proficiency in their use.
3) MDPH has distributed emergency contact information, described below, to all hospitals, key MDPH staff and health care partners on portable key-chain emergency flash drives.
4) MDPH's Communications Coordinator sends an e-mail to the hospital listserv, a user-friendly e-mail address.
5) The Massachusetts Hospital Association (MHA) sends an e-mail to all Hospital Disaster Chairs. MHA populates this list with addresses provided by hospitals in an annual emergency contacts survey.
6) If necessary, MHA will notify all hospital CEOs via blast e-mail and fax.
7) MDPH or MHA will push a text message to all MDPH-funded Nextel and Verizon hospital phones. MDPH can send the text message via an e-mail distribution group and/or the Health and Homeland Alert Network (HHAN). Push-to-talk regional talk groups may also be used to verbally alert hospitals.
8) MDPH pushes an alert, via the HHAN, to the hospital emergency contacts group.
9) MDPH can establish a statewide conference call with hospitals and other healthcare partners within 30 minutes.
10) GETS/WPS cards, which MDPH has issued to all hospitals and interested parties, will be used if normal landline and cellular connections experience a call overload. Each hospital's MDPH-issued cellular phone has been registered with the National Communications Systems' WPS program, enabling wireless priority access in the event that lines are inundated and overwhelmed.
11) MDPH can push messages to hospitals and C-MED centers to use the Hospital Capacity System (described in the next Capability) to monitor diversion, report current and surge bed availability, and enter needed medical equipment and supplies.

12) MDPH, hospitals, EMS Regional Directors and C-MEDS may use the satellite phones as a last resort method of communication. MDPH has also entered the satellite phone numbers into a specific HHAN group should MDPH need to issue an automated voice message to all phones at one time.
13) Once installed (equipment and service purchased but not yet operational), C-MEDS may use Voice Over Internet Protocol (Void), a technology that allows one to make telephone calls using a broadband Internet connection instead of a regular analog phone line. The C-MED VoIP system will be a closed data network that will provide a redundant mechanism of communication between C-MED dispatch centers.
14) Radios on a VHF repeated system, with statewide coverage, serve as an interim mutual aid radio network for the deployment of the 58 ambulance task forces. These radios meet some, but not all of the SAFECOM, P25, set of standards. The radios are channel-spaced at 12.5 kHz, per FCC SAFECOM, P25, requirements. However, the radios are not digital, encrypted nor are they enabled with over the air reprogramming. The system on which the radios work is a wideband 25 kHz system. The system does not accommodate digital nor over the air reprogramming.

2) Bed Tracking System Current Status - MDPH currently meets bed status reporting, but must maintain the systems established in previous years in order to remain compliant. New performance measures and reporting requirements recently issued by HHS will require additional work in the coming year. Training and exercises are necessary to maintain system and user operational capability and capacity. The Massachusetts Department of Public Health has an operational bed tracking system compatible with the HAvBED data standards and definitions. MDPH hospitals can enter HAvBED bed counts directly on the MDPH web-based system. Recently, MDPH added add/modify/change bed category functionality where aggregates of bed data, as well as totals by hospital and emergency preparedness regions, are available on this system. MDPH has set the default categories to the HAvBED definitions. In addition, Massachusetts hospitals can report various surge levels of the HAvBED bed counts. The MDPH system can also collect the following surge levels of the HAvBED definitions:
Level II - Staffed beds that could be made vacant by discharge, transfer, cancellation of elective procedures, Use of PaACU's, Endoscopy, etc.
Level III - Vacant Unstaffed Beds - 24 - 72 hours
Level IV - Overflow beds in non-traditional areas such as lobbies, cafeterias - 72 hours - 7 days
Currently, if HHS were to request a national HAvBED count, MDPH site administrators could easily access the HAvBED web-portal to enter aggregate bed data directly to the HHS SOC. Future work will include coding automated data pushes to the HHS SOC's HAvBED system. MDPH conducts a monthly Level 1, immediate counts of vacant staffed beds, drill to ensure hospital staff proficiency with the web-based system. MDPH reviews drill results with hospitals and troubleshoots any reporting issues to increase use of the system. MDPH does plan to build-out this system to incorporate additional information that will assist those making transport and other emergency response decisions. The information will offer a more comprehensive overview of hospital capacity status with easily accessible data.

3) ESAR-VHP System Current Status - MDPH has implemented its ESAR-VHP program under the name Massachusetts System for Advance Registration, or MSAR. The three major ESAR-VHP components: registration, credentialing, and deployment are being implemented in

stages. A full time program coordinator oversees recruitment and retention tasks, a full time IT coordinator implements automation solutions for the program and oversees the database production environment. The MSAR staff works in conjunction with representatives of Massachusetts hospitals, Medical Reserves Corps (MRCs), the Massachusetts Medical Society (MMS), regional and local public health to foster collaboration between MSAR and its stakeholders. MSAR is positioned to play a supportive role in a variety of scenarios that would require the ongoing support of health professionals in the Commonwealth, the region or the national level.

The program coordinator has spearheaded recruitment efforts through direct mailings to professional groups, the development and distribution of MSAR Hospital Recruitment Campaign Kits in collaboration with the Massachusetts Medical Society (MMS) as well as providing MSAR presentations on request to various groups, including professional group meetings and hospital Grand Rounds.

MMS has completed a pilot program to investigate the feasibility of contracting the MSAR IT system and credentialing process to an external organization. Recommendations based on the outcome of the pilot are being prepared.

A web-based self-registration website was launched in December 2006. While MDPH is currently actively recruiting volunteer physicians and nurses, the system is capable of registering any type of volunteer. As an inducement to volunteer recruitment, MSAR offers CEU credits for a required online training course to RNs, APRNs, and EMTs and CME credits for MDs. Data management workflows and reports have been implemented to provide detail and summary information on volunteers. Initial deployment call logs have been developed.

As of 16 July 2007 the MSAR system has 1760 volunteer applications. 1167 have completed the application, supplying every required field. Those who have not completed their applications are notified via email of the current state of their application on a periodic basis. Of the 1167 that have completed the application 436 have completed and passed the training component. Credentialing is underway on approximately 400 volunteers. A prototype of automated nurse credentialing with the Board of Registration in Nursing has been implemented. This functionality is capable of verifying the licenses of additional 600-650 nurses in the event of an emergency while the complete functionality is being developed.

MSAR has worked closely with MRCs to build collaboration and understanding between the two programs for both the leadership and members of the organizations. Discussion of sharing data, the registration portal, and credentialing information has taken place. MSAR attends and presents at MRC sponsored events. MSAR has sent MRC contact information and links to MRC recruitment websites for 546 volunteers who have requested MRC information.

Line item detail of the current state of the MSAR program mapped to ESAR-VHP compliance capabilities follows:

1.) Each State is required to develop an electronic system for managing volunteer data based on the data definitions and schema to be presented in the HRSA ESAR-VHP

Guidelines. Electronic systems must be built to current industry standards for security and protection of sensitive information, and must include requirements for redundancy. These electronic systems must be able to:	
Feature	Status
a) Offer secure WWW-based registration (low population States may not be required to meet this compliance element).	Compliant/Implemented
b) Maintain ESAR-VHP credential information in a secure electronic format.	Compliant/Implemented
c) Identify volunteers via queries of critical variables	Compliant/Implemented
d) Generate electronic data files in a secure format that can be interpreted and used by other jurisdictions managing volunteers	Compliant/Implemented
e) Track volunteers during deployment and track deployment history of volunteers.	Non-Compliant/waiting on final guidance

2. Each electronic system must be able to register and collect verified credentials of health professionals.	
Feature	Status
1) Physicians	Compliant/Implemented
2) Registered Nurses, including Advanced Practice Registered Nurses	Compliant/Implemented
3) Pharmacists	Non-Compliant/ waiting on final guidance, collecting relevant data/planned activity
4) Psychologists	Non-Compliant/ work in progress
5) Clinical Social Workers	Compliant/Implemented for MFTs, MPHSWs, MHSASWs
6) Mental Health Counselors	Compliant/Implemented
7) Radiologic Technologists no guidance- therefore not compliant	Non-Compliant/ waiting on final guidance/planned activity
8) Respiratory Therapists	Non-Compliant/ waiting on final guidance, collecting relevant data/planned activity
9) Clinical Laboratory Technologists and Technicians	Non-Compliant/ waiting on final guidance/planned activity
10) Licensed Practical Nurses	Non-Compliant/ waiting on final

	guidance/planned activity
b) Each State is required to register and collect verified credentials for the additional priority professions identified in the ESAR-VHP Guidelines to be released in Spring 2007. no guidance received c) States must add additional priority professions to their systems as they are added to future versions of the ESAR-VHP Guidelines. Timeframes for compliance will be based on the release date of the ESAR-VHP Guidelines.	Non-Compliant/ waiting on final guidance/planned activity

3. The ESAR-VHP system must be able to collect verified credentials and assign volunteers to one of four ESAR-VHP credential levels based on the verified credentials collected. Each State is required to develop a system capable of assigning volunteers to all four ESAR-VHP credential levels as defined in the ESAR-VHP Guidelines.	
Feature	Status
All	Compliant/Implemented

4. Each electronic system must be able to record ALL volunteer organizations that a given volunteer is affiliated with, including organizations at the local, State, and Federal level. To eliminate redundancy and the potential for a volunteer appearing in multiple registration systems, each State must be able to identify and record all affiliations that registered volunteers have with other volunteer organizations (e.g., Medical Reserve Corps (MRC) units, National Disaster Medical System (NDMS) teams, and State emergency response teams).	
Feature	Status
All	Compliant/Implemented

5. Each electronic system must be able to identify volunteers willing to participate in a Federally coordinated emergency response.	
Feature	Status
a) Each electronic system must query volunteers upon initial registration and/or reverification of credentials about their willingness to participate in emergency responses coordinated by the Federal government. Responses to this question, posed in advance of an emergency, will provide the Federal government with a rough count of the potential volunteer pool that may be available from the States upon request.	Compliant/Implemented
b) If a volunteer responds "Yes" to the Federal question, additional information may be required of the volunteer. Each electronic system must have the ability to collect information about each volunteer's training, physical and medical status, and criminal background history. The master variable specifications in the ESARVHP Guidelines will identify any additional data elements that need to be	**Training:** Compliant/Implemented **Physical/mental status:** Non-Compliant/ waiting on final

collected.	guidance, collecting relevant data/planned activity

6. Each State must be able to collect personal and verified information about a volunteer's credentials on a recurring basis. Each State is required to re-collect personal information and re-verify credential information for each volunteer every 6 months.	
Feature	Status
All	Non-Compliant/ waiting on final guidance and clarification, collecting relevant data/planned activity

4) Fatality Management Plans Status - The Massachusetts Comprehensive Emergency Management Plan (CEMP) currently includes a Disaster Response Plan for Unconventional Fatalities from the Office of the Chief Medical Examiner dated February, 2004. In addition, a Major Air Crash Event Plan (MACE) dated September, 2001 contains a fatality management section. The Office of the Chief Medical Examiner (OCME) is a support agency for Massachusetts Essential Support Function - 8, Health and Medical Services (MAESF-8). MDPH, the Office of the Chief Medical Examiner and the Massachusetts Emergency Management Agency have begun discussions on pandemic mass fatality planning, extending existing plans to accommodate the projected deaths from an influenza pandemic. Last year, representatives from MA and other New England states established a Mass Fatality/Morgue Workgroup as part of the New England Pandemic Flu Conference to begin planning in terms of a regional (New England) response plan, including Continuity of Operations, personal protective equipment, body collection, autopsy, tracking systems, temporary interment, death certificates, burial permits, and funerals. Much of this work is still in its infancy as we plan for an event that meets the potential scale of a pandemic. While some of the hospital based clusters (a single hospital and a set of pre-assigned communities that will form a responding unit in a pandemic) have begun discussion of mass fatality planning at the local level, there is currently no mass fatality plan in the MDPH Pandemic plan. The Bureau of Environmental Health (BEH) is identifying and planning for refrigerated storage and processing of deceased individuals in the event of a mass casualty, and has geocoded Massachusetts ice rinks including state, municipal and private rinks. Crematoria have also been identified across the state and geocoded to facilitate disposition. There are 18 crematoria in Massachusetts, distributed across major highway routes and urban centers. Under MGL c.114, § 9, the Community Sanitation Program is tasked with ensuring all crematoria have bylaws for operation.

Decisions with respect to burial sites and their placement in Massachusetts are under the authority of local boards of health. Mass graves/burials are not under consideration. The BEH Community Sanitation Program provides extensive information regarding the disposition of deceased individuals and related regulations on its website.

5) Hospital Evacuation Plans Status - MDPH and the hospitals in Massachusetts understand the necessity and importance of evacuation planning. Massachusetts has made significant progress in meeting this ASPR capability but needs to confirm that hospital plans statewide are integrated into planning at the community level to best ensure the safety of patients, visiting family members and staff in the hospital during an emergency. All Massachusetts acute care hospitals are JCAHO accredited hospitals, and are therefore required to have both horizontal and vertical evacuation plans in place. Over the past couple of years, several facilities in Massachusetts have had to implement all or part of their evacuation plans. From December, 2005 to present, two acute care hospitals have had to evacuate patients to outside facilities due to a boiler explosion (Mount Auburn) and a burst pipe (Metro West Natick). Two long term care facilities had to evacuate patients due to flooding (Mary Immaculate) and a chemical explosion in the neighborhood (New England Home for the Deaf). Two acute care hospitals have had to evacuate patient floors to other locations within their facility due to fires (Salem and Mercy). Two acute care hospitals and a long-term care facility (Whidden, BUMC and North End Nursing Home) had to prepare to evacuate their entire facilities due to neighborhood water main breaks although evacuations turned out to not be necessary.

During 2006 and 2007, the hospitals and MDPH have been working on refining and exercising evacuation plans. On the regional level, MDPH ASPR HPP Hospital Coordinators have worked with all of their hospitals to create and sign regional mutual aid agreements. These agreements include provisions for facilities to send and accept patients, staff and supplies. HPP staff has been working with our Health Care Quality Division and representatives from long term care facilities to conduct planning and preparedness for nursing homes, including evacuation planning. Additionally, MDPH through HRSA/ASPR funding has established redundant statewide hospital communications systems, interactive web based bed/resource reporting and tracking systems and 58 ambulance task forces consisting of a total of at least 290 ambulances. On the individual hospital level, several of the hospitals have contracted with an outside expert consultant to assist them in creation of full building and specialty care unit evacuation plans. These facilities include hospitals in three of our six Regions (regions 2, 4C and 5).

In February 2006 a region wide tabletop exercise was held in Boston focusing on hospital evacuation. Lessons learned from the Mount Auburn Hospital boiler explosion were incorporated into the exercise and carried over to the real life water main break incidents at the Whidden and the BUMC. In May of ‘07, a regional facilitated hospital evacuation tabletop exercise was conducted in Boston and in June, Lahey North Hospital conducted a functional evacuation exercise.

Level Two Sub-Capabilities

1) Alternate Care Sites (ACS) Current Status - All Massachusetts acute care hospitals have been actively participating in planning for alternate care sites since 2006. In February, 2006, the Massachusetts Department of Public Health and the Massachusetts Hospital Association issued a joint advisory to all acute care hospitals outlining the planning assumptions and projected impact of a pandemic on the Commonwealth. This information was followed by another advisory in March, 2007 instructing hospitals to begin to plan for alternate care sites to provide hospital surge capacity for a pandemic scenario. At that time, hospitals were requested to begin to work

in their regional planning groups to identify the communities that would become their catchment area under the pandemic scenario. Because of the possible limitations to travel (disruptions in public travel, gas shortages) and the likely reluctance of patients to leave their immediate area (fear, children at home, or other local obligations), hospitals were asked to assign all communities to hospitals based on geographic proximity and proportionality of the population to hospital capacity. Each of the hospital preparedness regions undertook this assignment, and then began to work with neighboring regions to assign communities on regional borders.

The hospitals and their assigned communities are known as the hospital based clusters. The community assignments to clusters are the underpinning of the response. The pandemic scenario will require all communities to respond with their available assets, and without significant federal, state, or regional assistance. A cluster based response provides a responding unit that is small enough to coordinate and manage on a decentralized basis, but large enough to provide for efficient allocation of shared responsibilities and resources. Pre-assignment of communities also allows for impact projections on a defined population base, inventories of sub-regional resources, and pre-event community preparedness and education. Cluster specific impacts have been provided to each hospital outlining the cumulative and peak projections for hospital level care based on the Commonwealth's planning assumptions.

A statewide briefing for hospital CEO's was held at the Massachusetts Hospital Association in July, 2006. MDPH presented the planning for Influenza Specialty Care Units (ISCUs), the term used to describe the alternate care site to provide supportive care to flu patients too sick to be cared for at home, but for whom a hospital bed is not available. ISCU application materials included a checklist based on the AHRQ site selection tool, scope of service guidance, and a template MOA were provided to all hospitals. At this time, nearly all hospitals have identified the site for their ISCU, and 95% of hospitals have identified the site for their ISCU, 52% have plans submitted completed or partial applications for licensing, and 11 of the 65 clusters have signed MOA's with their ISCU site.

2) Mobile Medical Assets Current Status - MDPH has purchased twelve (12) mass causality incident (MCI) trailers to be use by the first responders during a MCI event Each MCI trailer is designed to assist in treating approximately 50 adult patients and 25 pediatric patients. Each region therefore has enough additional supplies to assist in treating approximately an additional 150 MCI casualties. The units are designed to assist in treating patients in a large-scale incident for an extended period of time. They are designed to provide additional supplies or to re-supply EMS vehicles on-scene at an MCI incident.

Massachusetts has no mobile medical tents, and has no plan to purchase such assets. Massachusetts believes that climate and geographic/population density considerations support the use of existing buildings to provide surge health care. Through our cluster planning process, local alternate care sites in existing buildings have been identified to serve as Emergency Specialty Care Units (ESCUs).

3) Pharmaceutical Caches Current Status – Under previous years of HRSA funding, 100% of participating hospitals developed pharmaceutical caches sufficient to cover hospital personnel (medical and ancillary), hospital based emergency first responders and family

members associated with their facilities for a 72-hour time period. Hospitals are required to have sufficient antibiotics to treat staff and immediate family members of staff for three days. The antibiotics must have activity against certain Category A biologic agents (anthrax, plague and tularemia) and should be similar to the antibiotics in the CDC maintained federal stockpile (Strategic National Stockpile). The CDC maintained antibiotics include doxycycline (~70% of stockpile), ciprofloxacin (~23% of stockpile) and amoxicillin (~7% of stockpile). Where ciprofloxacin is not the universal formulary fluoroquinolone antibiotic, the hospital's formulary fluoroquinolone may be substituted for the ciprofloxacin included in the CDC stockpile for meeting the minimum 23% coverage expectation.

It is the responsibility for each hospital to maintain these minimal levels of force protection and antidote capabilities. HRSA and now ASPR grant funds provided annually to hospitals are permitted to be used for the development and maintenance of these pharmaceutical caches. A report mechanism will soon be available whereby all hospitals will report quantities of these pharmaceuticals on a quarterly basis or more frequently as the need arises. An MDPH system-wide inventory management gap analysis was to be undertaken with an expected completion date of June, 2007. The scope of this project has been expanded to include a feasibility study of tying into a statewide inventory management system being developed by the Massachusetts Emergency Management Agency (MEMA). The increased scope of the project has now delayed the anticipated completion by at least several months. The results obtained from this analysis will allow the development of a system-wide inventory management system structured to meet the needs of all users. Included in this system will be the inventory control for all pharmaceutical caches as well as other medical material purchased for emergency preparedness response. At present, the web based MDPH Emergency Department (ED) ambulance diversion system maintained by all hospitals with emergency departments is capable of accepting reports of pharmaceutical inventories from all participating hospitals.

4) Personal Protective Equipment Current Status - The Massachusetts Department of Public Health has worked to ensure hospitals are provided adequate personnel protection equipment (PPE) to protect current and additional health care personnel during a chemical, biological, radiological or nuclear incident. Over the years of the HPP grant program, all of the hospitals in Massachusetts have been provided with funding and directed to purchase PPE consistent with HVA needs. The hospitals participate in completing MDPH surveys in order to determine their PPE cache levels and assess current and future needs. MDPH HPP regional hospital coordinators work with the hospitals to confirm the availability of A, B and C PPE in all hospitals.

In addition to the inventory of PPE located at the hospitals, MDPH has purchased and deployed regionally 12 mass causality incident (MCI) trailers to be used by the first responders during a MCI event. The trailers are mobile and strategically housed in every region allowing for rapid deployment to anywhere in the state. Each trailer, in addition to containing standard MCI and EMS treatment supplies contains the following inventory of PPE:

Gloves: nitrile/powder free 100/box (Small) - 2
Gloves: nitrile/powder free 100/box (Medium) - 4
Gloves: nitrile/powder free 100/box (Large) - 4

Gloves: nitrile/powder free 100/box (X-Large) - 2
Visitor Spectacles (vented side shield glasses) - 25
N95 Masks (box of 20) Small - 2
N95 Masks (box of 20) Medium - 4
N95 Masks (box of 20) Large - 2
Tyvek suit (hood/booties) 25/case XXX-Large - 2
Tyvek suit (hood/booties) 25/case X-large - 2
Tyvek suit (hood/booties) 25/case XX-Large - 2
Hooded PAPR - 2

In addition to ensuring adequate supplies of PPE exist, MDPH through a partnership agreement with the Massachusetts Department of Fire Services (DFS) Training Academy has developed and presented PPE and decontamination related trainings including hazmat and counterterrorism awareness, PPE and decontamination initial, refresher and train the trainer. Since 2004, DFS has provided ICS 100 and 200 to 3,067 students; PPE/decontamination and refresher to 2246 hospital based personnel and 1891 EMS based personnel; Mass Decontamination Instructor Trainer to 136 students, and ICS Haz Mat awareness to 1711 students.

5) Decontamination Current Status - The Massachusetts Statewide Mass Decontamination System was developed and designed by the Massachusetts Department of Fire Services (DFS) to meet the goal of protecting the health care infrastructure from being impacted by an incident where victims are contaminated and present at a hospital, thus expanding the emergency from the scene to a hospital facility. Ninety-one mass decontamination units (MDUs) provide protection for all acute care hospitals in Massachusetts that have emergency departments. Every hospital is assigned an MDU and additional MDUs remain available for community response. Each unit is trailer based and fully mobile. Each has the capacity to provide decontamination for 75-150 individuals per hour which is 6900-13,800 individuals/hour statewide. The MDUs are based either on hospital campuses or at fire departments within the hospital's community.

The Statewide Mass Decontamination System is supported and maintained by various programs and activities. In addition to the MDU trailers themselves, MDPH's partnership with DFS has included the development of Statewide Mass Decontamination Response System Community Response Plan that provides deployment information and protocols. This plan was updated last year and has been distributed to all hospitals and all fire departments that house MDUs statewide. The plan represents collaboration between the Fire Chiefs' Association of Massachusetts, the Professional Fire Fighters of Massachusetts, the Massachusetts Department of Public Health, the Massachusetts Emergency Management Agency and the Massachusetts Department of Fire Services. DFS also provides several PPE/Decontamination related trainings to first responders and receivers as part of the MDPH/DFS inter-agency agreement. ASPR HPP funding is also used to facilitate collaboration with acute care hospitals and their local fire departments through MDU training summits, restocking, and exercises to test deployment, set-up and use in an emergent event.

Overarching Sub-capabilities

The four overarching requirements : (1) NIMS; (2) Education and Preparedness Training; (3) Exercises, Evaluation and Corrective Actions; and (4) Needs of At-Risk Population have been incorporated into the main Narrative sections for the Level 1 and Level 2 sub-capabilities. In order to make the document easier to read, we are excerpting some of the specific projects and activities that achieve the overarching goals. In some cases, additional information is provided and a crosswalk to specific projects or activities is referenced.

A. National Incident Management System

In the HRSA FFY 2006 application, MDPH provided the required assurance letters and executive orders that documented Massachusetts statewide adoption of NIMS by all agencies. MDPH incorporated the NIMS requirements for hospitals "NIMS Implementation Activities for Hospitals and Healthcare Systems" into the 2006 Hospital Memorandum of Agreement (MOA) which was signed by 100% of all hospitals in this state. That MOA required full compliance with elements 7, 9, 10 and 11 by September 30, 2007 as required by FEMA and HHS. A letter attesting to compliance has been drafted and will be sent to all hospitals at the end of August to obtain written verification and assurance that all four requirements have been achieved. Hospitals who do not return the verification will not be eligible for 2007 funding.

For the ASPR 2007 MOA, hospitals will be required to agree to meet the remaining 13 NIMS requirements in order to be eligible for ASPR 2007 funding.

In addition to the above verifications, MDPH has included NIMS concepts into all applicable projects and activities proposed to meet ASPR Level 1 and Level 2 requirements. Examples include the following – interoperable communications (SAFECOM statewide plan development and MDPH communication protocols), ESAR-VHP/MSAR (training opportunities for MSAR volunteers), hospital evacuations (training and exercises), alternate care sites (NIMS job action sheets, training and exercises), PPE and decontamination (training and exercises).

MDPH will continue to encourage other healthcare providers and services to participate in NIMS training opportunities.

B. Education and Preparedness Training

The MDPH ASPR HPP program participates in and provides a number of competency-based education and training initiatives. Coordination among training opportunities and providers is a priority. References to ASPR related training opportunities are identified in the Level 1 and Level 2 Program Narrative Objectives. Requirements for competency-based trainings, prohibitions against backfills, cost-sharing and biennial reporting (March 1 and October 31) of the numbers and roles of hospital personnel attending training are required in the annual hospital MOA. These requirements will be continued for ASPR 2007 hospital MOAs.

MDPH ASPR HPP training opportunities for FFY '07 funding include the following:

1) MDPH/Department of Fire Service Training Academy collaboration – continued multiple offerings of the following competency based training courses –

- Incident Command System for Health Care Providers Program
- EMS Hazardous Materials Awareness and Incident Command System Program
- ICS 200, Hospital Personal Protective Equipment and Decontamination Program EMS Personal Protective Equipment and Decontamination Program
- On-line EMS Hazardous Materials Awareness and Incident Command System Program Hospital Personal Protective Equipment and Decontamination Refresher
- EMS Personal Protective Equipment and Decontamination Refresher
- Hospital Personal Protective Equipment and Decontamination Refresher Instructor Training Program

- Course Development for FY 2008-2009 will focus on revising existing courses to train-the-trainer formats to allow hospital, EMS and other healthcare providers to perform their own training programs, or are linked to new ASPR Level 1 priority for Hospital Evacuations
  - EMS Personal Protective Equipment and Decontamination Instructor Training Program
  - Hospital Personal Protective Equipment and Decontamination Instructor Training Program
  - Incident Command System for Hospital Evacuation Program
  - Practical Hospital Evacuation Instructor Training Program

2) DelValle Institute collaboration – this will be the first year that ASPR is providing funding for the provision of training opportunities for hospitals and healthcare systems. DelValle is operated by the Boston Public Health Commission, and has been historically funded from the CDC cooperative agreements and UASI DHS grants. Courses were limited to the City of Boston hospitals and health care systems. MDPH/ASPR provided the trainings for the healthcare providers in the remaining 350 municipalities. Working relationships between DelValle and the DPH/DFS training coordinators have been good, and this year have been strengthened as a result of the ASPR Partnership initiative – DelValle is a principal partner in a strongly supported Partnership application that includes two of our state hospital preparedness regions, in addition to Boston. Certain non-redundant DelValle training programs will be opened to hospitals outside on the Boston region for the first time. These will include opening three programs for the training of 100 students each, and additionally providing MDPH with four online Boston MRC on-line leadership training programs that they will revise to become applicable statewide.

3) Communications trainings are provided by the MDPH ASPR HPP Communications/IT Systems Coordinator and HHAN (Health and Homeland Alert Network) Coordinators. These trainings include the full range of HPP communications systems – Nextel/Verizon and Satellite phones, push-to-talk radiophones, HHAN, Bed Status reporting, and emergency room diversion reporting systems.

4) Mass Colleges On-Line Training program development – continued partnership with the state and community college online program which is completing development of online programs for surge personnel training (personal care attendants, MRCs and employees of

the state and community college system) who volunteer for emergency preparedness training to be available in the event of a pandemic or other disaster.

C. Exercises, Evaluations and Corrective Actions

MDPH is participating with the state interagency HSPD 8 State Advisory Committee and the Executive Office of Public Safety to develop an exercise plan for conducting joint exercises to meet multiple requirements from various grant programs. Exercise planning also includes focused attempts to include At Risk individuals in the planning and execution of the exercises. The MDPH Emergency Preparedness Exercise Coordinator is coordinating reporting of all exercise information to NEXS.

Initial planning for the Functional Exercise required under the ASPR agreement this year has begun for Hospital Evacuations. A preliminary plan for regional tabletops followed by a functional can be found in the Objectives for the Level 1 Hospital Evacuation sub-capability and in the budget narrative. Final planning and commitment is on hold pending receipt of the CDC guidance for the Public Health Emergency Preparedness program. An exercise Plan including all exercises ASPR MDPH will be funding will be submitted at a later date, as directed.

As described in the Level 1 and Level 2 Objectives, exercises are planned for Hospital Evacuations, the Boston Marathon (a planned mass casualty event), Radiation Control response, and an exercise toolkit will be developed for hospital alternate care sites (ESCUs). Activation exercises (communications systems) are planned for ESAR-VHP (MSAR), mass decontamination systems, and ambulance task forces. Communications systems (push to talk radiophones, satellite phones, HHAN) are drilled on a regular schedule. Additional details will be submitted with the Exercise grid.

MDPH has volunteered to provide HHAN communications and exercise assistance to the PEER (Partnership for Effective Emergency response) application that will be submitted to ASPR for consideration.

D. Needs of At-Risk Population

In order to ensure that all citizens have access to an emergency response, identifying and addressing any barriers to a response is required. Depending on the nature and scale of an event, some persons will be either isolated from, or will require assistance or special consideration during a response. Massachusetts is committed to working at the state and local level across agencies and funding streams, to plan and prepare for the at risk populations.

Under FFY07 ASPR funding, we will work to include people with disabilities into our exercises, and to include planning for children and the elderly in our responses. We will also consider the needs of those with language and cultural barriers in our planning and preparedness. Specific initiatives include a mini-grant program to provide funding to grassroots, community organizations and groups to assist with planning needs, training, and best practices for the preparedness of medically vulnerable persons; the hospital evacuation exercises; training medical translators to assist those with language barriers during a response, and recruiting them into our

MSAR database; a recently initiated workgroup on pediatric surge issues; and the integration of the Department of Mental Health crisis counselor network into our MSAR database.

The Pandemic scenario presents unique challenges to at risk populations, and we anticipate further addressing these needs under FFY07 ASPR Pan Flu funding once it is released. We will continue to work closely with our CDC PHEP grant funding and our public safety and emergency management partners to collaboratively identify and address the needs of at risk populations.

Needs Statement

Level One Sub-Capabilities

1) Interoperable Communication System Needs

1) Maintenance of Hospital Emergency Preparedness and Response Communications Methods and Outreach to Other Healthcare Partners
   MDPH has developed a communications protocol and system which includes the use of emergency flash drives, emergency preparedness listservs, a Sprint/Nextel and Verizon push-to-talk network grouping all hospitals and EMS by their preparedness regions, GETS/WPS priority access cards, satellite phone network, alerting network, hospital capacity website and Voice-Over-Internet Protocol (VoIP) linkage for C-MED centers. MDPH needs to maintain all projects and expand others by adding contacts in additional groups, such as those that would respond to at-risk populations in an emergency. There is an ongoing need for trainings and exercises so responders are proficient in the systems' use. MDPH must also conduct regular outreach to maintain current emergency contacts lists and to open emergency notification to all emergency response staff, statewide, i.e. long-term care facilities and individual EMS services. The Massachusetts Hospital Association assists with the communication drills, updates the emergency preparedness directory, and performs other emergency preparedness tasks as needed. In addition, there are ongoing monthly costs associated with the elements of the communications network and funding from this cooperative agreement is needed to maintain the system.

2) Statewide Communications Interoperability Plan
   A number of characteristics have made the development of a statewide communications network a challenge in this state. Massachusetts is a Commonwealth, characterized by relatively weak or non-existent regional government structures, combined with dominant (Home Rule) City or Town authority and concomitant stand-alone public safety and public health IT and radio systems. Independent RF command channel interoperability initiatives are occurring with independent statewide fire and evolving EMS-Hospitals-Boards of Health communications networks operating or in development. There is no single statewide discipline-agnostic entity planning and implementing a consistent Interoperability Vision, Goals, Objectives, and, most importantly, unifying Initiatives. No information sharing architecture exists in Massachusetts that defines the specific information exchange requirements between all Stakeholders as a function of the incident, emergency, or disaster.

Federal initiatives have long sought state, regional and local collaboration, with the necessary wide-area and statewide standard approach clearly the responsibility of the state. In this regard, the Department of Homeland Security (DHS) has required that all states develop and adopt a statewide communications interoperability plan by the end of 2007. Massachusetts is developing the Statewide Communications Interoperability Plan (SCIP) that is compliant with the interoperability continuum specified by SAFECOM. This Plan will be completed by 11/1/07 and is a requirement for state eligibility the upcoming Public Safety Interoperable Communications grant process from the National Telecommunications and Information Administration (NTIA). The National Telecommunications and Information Administration (NTIA) grant will result in enhancements to the overall statewide communications system. Development of the SCIP and the NTIA application need to include active participation from hospitals, EMS and public health disciplines.

2) Bed Tracking System Needs

1) Emergency Department (ED) Capacity – Currently, hospitals and the C-MED centers report hospital diversion and, when requested, bed counts and other inventories via the MDPH Hospital Capacity Website. MDPH, hospital and EMS groups have identified the need for an ability to collect ED capacity separately from the HAvBED counts. ED status should be reported electronically and in real-time.

2) Failover Server – The current system has a single firewall and single server, which leaves the system susceptible to a single point of failure. A new backup server must be added to ensure connectivity should one server become inoperable.

3) Automated Notification - Integration with the Health and Homeland Alert Network (HHAN) and Ability to Receive RSS Feeds of Crucial Hospital Capacity Information – There is no real automated integration of Hospital Capacity System and the HHAN, nor is there a mechanism for the system to automatically update users of crucial hospital status information. Currently, MDPH must manually push messages to its healthcare partners regarding hospital diversion and capacity.

4) GIS Mapping Integration – At present there is no user-friendly data mapping abilities to the Hospital Capacity website.

5) Site Security – There is an ongoing threat of unauthorized users attempting to gain access to the MDPH system and thus, a true need for added security measures.

6) Daily Reporting Standard – Not all hospitals report bed counts on a daily basis and there is not 100% reporting when MDPH notifies hospitals to report bed counts and/or other information online.

3) ESAR-VHP System Needs - Planning for the MSAR program is focused on the need for continued recruitment, retention of existing volunteers, program visibility, and additional

relationship building with hospitals and MRCs as well as the identification of additional sources of volunteer recruitment. The following needs have been identified:

1) Addition of priority occupations (*APRNs, PAs, Dentists, EMTs, Paramedics, Pharmacists, RTs, RT Technologists, Cardiovascular Technologists and Technicians, Radiologic Technologists and Technicians, Surgical Technologists, Medical and Clinical Laboratory Technologists, Medical and Clinical Laboratory Technicians, Diagnostic Medical Sonographers and Veterinarians*)
2) Finalize activation protocols
3) Integration with the MA HHAN
4) Conduct exercises for activation/ testing of the system
5) Addition of NIMS training for volunteers and access to DelValle programs and ABLS trainings.
6) Ensure MSAR volunteers remain engaged in program through email communications (newsletter idea), optional training and educational programs, items of interest on website, etc…
7) Refine the MSAR/Hospital relationship
8) Continue efforts with Medical and Nursing licensing boards
9) Increase outreach to priority occupations by reaching out to relevant professional licensing boards
10) Continue marketing, promotion and recruitment through collaboration with MMS
11) Refine credentialing processes to include state background checks. Approval for this activity has been received from the appropriate state CORI board.
12) Prioritize areas of the program to meet the ESAR-VHP compliance requirements which will be included in the FY2007 ESAR-VHP Technical and Policy Guidelines, Standards and Definitions (Guidelines) which are to be released in summer of 2007.
13) Automation of areas where transaction volume indicates automation is feasible while ensuring that less the frequently used avenues of credentialing are implemented manually.
14) Work towards a more efficient manner for the electronic exchange of credentialing data
15) Develop internal hospital policies to integrate MSAR volunteers into hospital operations.

4) Fatality Management Plans Needs - A thorough review and gap analysis of the mass fatality plans at all tiers is needed to fully assess and prioritize the planning and preparedness needs. A process needs to be developed to ensure 1) all relevant parties are fully engaged in the planning, 2) planning addresses the preparedness, response, and recovery needs of each of the tiers (local, regional, state), and 3) plans are fully integrated into the relevant existing response plans at the local, regional and state tiers. During FFY07, Massachusetts will focus on developing comprehensive, integrated mass fatality management plans. All-hazard and catastrophic operational plans need to be reviewed and/or developed at all tiers, and pandemic annexes developed.

Many of the bottlenecks in managing mass fatalities during a pandemic will require alterations in policies and practices at the local level, such as surge capacity for personnel to declare deaths and expedited processes for burial permitting. Legal authorities and state and local regulations need to be reviewed and any provisions made for altered practices, policies, and regulations as needed. Integrated planning with state and local officials, funeral directors, crematoriums,

religious groups, and cemeteries is needed. Increased inventories of relevant supplies and materials, plans for additional staff and training and integration of volunteers, and local storage capacity are areas that need development at the local and facility level.

5) Hospital Evacuation Plans Needs - The major areas providing opportunity for improvement in hospital evacuation planning include: 1) Need for assessing the level of integration of current hospital evacuation plans with local, regional and statewide emergency evacuation planning. 2) Need for regional and multi region exercise and evaluation of evacuation plans and regional hospital mutual aid plans to determine if individual plan improvements are needed. 3) Creation of training programs to be made available to hospital staff on hospital evacuation ICS and safe vertical evacuation patient movement techniques.

Hospital evacuation planning cannot be conducted in a vacuum. Hospitals must rely on local public safety partners to ensure ingress and egress of ambulances, buses and helicopters; provide perimeter security and hazard control; assist in the physical movement of patients; and provide many other elements essential to a successful evacuation. MDPH knows that all hospitals have evacuation plans in place. We do not know the extent to which plans have been integrated into local, regional and statewide preparedness planning. Much of the activity conducted during this grant period will focus on determining the current level of integrated hospital, local and regional evacuation preparedness, identifying gaps and developing strategies to assist the hospitals and local public safety and emergency management to improve integration of evacuation plans where needed.

Level Two Sub-Capabilities

1) Alternate Care Sites (ACS) Needs - While underway and progressing well, there is still much alternate care site planning to be done. The major challenges at this time are: 1) engagement and participation of all partners in the planning, 2) purchasing of the supplies and equipment, and 3) development of all-hazards community based med/surge plan of which ISCU planning would be an annex.

1) <u>Engagement and participation of all partners in the planning</u> - As previously described, MDPH has worked with hospitals to assign all Massachusetts communities to a single hospital in order to create sub-regional planning and response units for the pandemic scenario. Once the community assignments were determined, hospitals were advised to contact the health directors of their cluster communities, and to begin to discuss possible alternate care sites. While this was intended to be an open and inclusive process, in some cases the hospitals proceeded with site identification without the participation of the local health departments. This led to frustration, confusion, and alienation in some localities. Questions about the interface of Emergency Dispensing Sites and the alternate care sites were raised, as well as concerns about the roles and responsibilities of local health and staffing concerns. In order to address these issues, the MDPH Hospital Preparedness Coordinator attended local health meetings, trained the MDPH local health regional coordinators on the process, and provided a FAQ document. All hospitals were again reminded that local health should be involved in all aspects of this planning, and cluster

planning groups began to form to include local health as well as public safety and community organizations. This process is incomplete at this time, and more time will be needed to adequately reflect local health input into the cluster assignments.

One of the challenging issues for cluster planning is the command and control structure for public safety under the Pandemic scenario. The hospital based cluster approach addresses key planning objectives for public health: decentralized authority and operations, local access to care, and efficient use of scarce personnel. However, public safety has well developed regions that differ from the public health preparedness regions, as well as mutual aid and mobilization plans that do not conform to the newly identified clusters. Inter-agency planning is needed to identify a mechanism to address medical surge command and control while preserving existing public safety responses to their core missions.

2) Resourcing of plans - At this time, we have legislation pending with a funding request to resource 5,000 ISCU beds. The request includes the beds, equipment, supplies, and pharmaceuticals to provide supportive flu care only. The level of care is for those too sick to be cared for at home, but for whom an acute care hospital bed is not possible. Oxygen will be provided through room air concentrators only, and IV hydration and IV antibiotic therapy will be available. Materiel will be pre-positioned in hospitals and/or their ISCU sites or local communities to the greatest extent possible. Materiel unable to be pre-positioned will be stored in state facilities and transported as needed. It is expected that the hospitals and communities will have knowledge of the locations and contents of the stored materiel, and will be able to deploy them for any all-hazards event as needed, such as temporary sheltering. A spreadsheet of requested materiel has been developed and the state is ready to begin purchasing when funds become available. The legislation also includes liability provisions that will be essential to our ability to recruit community volunteers and inactive/unlicensed or other uncovered health care providers to assist in the response.

3) Development of all-hazards plan of which ISCU planning would be an annex. - The Influenza Specialty Care Unit (ISCU) is intended to provide hospital level community based surge capacity under the Pandemic scenario. The number of beds needed is derived from the use of the FluSurge planning tool and our Pandemic planning assumptions. The staffing and supplies are minimal, reflecting both the expected workforce shortage as well as a single diagnosis/single level of care. While the sites themselves and many aspects of the plans would lend themselves to an all-hazards plan, further planning is needed in order to create a true all-hazards alternate care site (Emergency Specialty Care Unit – ESCU) plan. The ISCU plan would be an annex to the all-hazards ESCU plan. Once developed, these plans would need to be fully integrated into the community emergency management plans, and exercised with all partners.

For a true all-hazards plan utilizing alternate care sites to be operational, plans must also exist to supply the personnel to staff the ESCU. While the Commonwealth of Massachusetts is fortunate to have two DMAT teams located within the state, a growing ESAR-VHP (MSAR) system, and a robust network of Medical Reserve Corps, recent events have identified a needed corrective action – the ability to provide a team of pre-identified, pre-trained volunteers that can be activated through a hospital mutual aid agreement to quickly respond

to an acute, time-sensitive event that is relatively short in duration but critical in mission. At this time, MSAR can only be activated under a declared public health emergency or upon approval by the Commissioner of his/her designee following a specific request by a locality. A contaminated water supply (sodium hydroxide) in a small town last spring identified the need to provide hospital resources at a local event to conduct screening and treat and release for walking wounded and worried well. This would allow EMS to focus on the triage and transport of the more critically injured to hospitals. Because this was unable to be done on the scene, all exposed individuals were transported to hospitals for decontamination and evaluation, needlessly overwhelming those resources. MDPH will explore planning for hospital based "Go-Teams" to fill in the gap when hospital resources are needed quickly, but the MSAR system has not been activated, or is awaiting activation during FFY07.

Further planning for staffing for an all-hazards surge response includes continuing our training programs in ICS, PPE/Decon, Radiation Control and Haz Mat. We are adding Advanced Burn Life Support (ABLS) training this year. The burn training project will include funding for the ABA online course and practical instruction by certified burn instructors from the Massachusetts General Hospital. In addition to ASPR funded activities, PHEP and Pan Flu funding will also support our state ESAR-VHP system (MSAR) and our Medical Reserve Corps.

2) Mobile Medical Assets Needs - While alternate care sites in existing buildings have been identified and planning is progressing to resource and staff them for an all hazards event, or pandemic influenza, further planning is needed to ensure capability to receive a Federal Medical Station.

3) Pharmaceutical Caches Needs - Massachusetts has successfully built pharmacy cache capability for all hospitals as noted above. Areas of improvement include: 1) Confirmation is needed that all hospital caches are current and sufficient to cover all required personnel and family members associated with their facilities for a 72-hour time period. 2) Although the web based MDPH Emergency Department (ED) ambulance diversion system maintained by all hospitals with emergency departments is capable of accepting reports of pharmaceutical inventories from all participating hospitals, no formal protocols exist regarding the reporting of such inventories and it is unclear whether hospitals would resist to reporting their par levels due to proprietary concerns or other operational issues.

4) Personal Protective Equipment Needs - The major areas providing opportunities for improvement include:

1) <u>Confirm that current levels of PPE caches are sufficient to protect hospital personnel</u>. Although PPE levels were confirmed through a formal hospital survey conducted last year and follow up by the coordinators this year, conditions are constantly subject to change. It is not realistic to base planning on survey results that are over a year old. HVA's change due to new hazards arising and PPE par levels may be increased by additional purchases and decreased by use in actual incidents and exercises. Therefore, an accurate, up to date assessment of hospital PPE supply levels is needed.

2) Confirm that the proper use of personal protection equipment is adequately understood by responders and receivers, both in the pre-hospital and hospital environment. Although we survey the quantity of PPE available, we also need to confirm that responders are competent and confident in the use of such equipment. Currently the only confirmation we have regarding PPE competency is records of the number of students that have been trained through the MDPH partnership with DFS.
3) Need to further engage all disciplines of responders who would benefit from PPE training, including Hospitals and EMS pre- hospital health care providers. Enrollment in PPE training and refresher classes offered through the DFS program has declined significantly over the past year due to multiple factors including the difficulty of scheduling classes without the ability to backfill and reliance on initial training. Turnover of health care personnel requires continuation of initial and refresher training. One of the needs that has been identified that would help enable the hospitals and EMS agencies to increase their participation and contribute to sustainability of facility and agency readiness is to provide increased flexibility through more train the trainer based programs. The major focus of course development under this year's grant will be on train the trainer programs.

5) Decontamination Needs - The major areas providing opportunities for improvement include:

1) Need to ensure continued participation of all partners in MDU related planning and training. In order for the MDU system to continue to function effectively, it is essential that all responders and receivers who will be involved in an MDU response understand their roles and responsibilities. It is equally important for hospital and local fire personnel to include MDU operations in their ICS and response planning. Through the MDPH/DFS partnership, several classes are offered that provide both hands on PPE and decontamination training for responders and ICS with a Haz Mat awareness component. There has been declining enrollment in these classes due to a variety of reasons including difficulty in scheduling due to shift constraints and inability to pay back fill.

2) Need to assess the current status of MDU components. During 2002-2003, ninety-one mass decontamination units were distributed to 71 fire departments throughout Massachusetts. Currently, the funding for the replacement of worn or damaged equipment is provided for in part through the federal grants and partially supported by the fire department that owns the mass decontamination unit. The stocking and re-stocking process was designed in a manner to ensure consistency across the 91 units deployed throughout the commonwealth. As such, any major changes in the components that make up a single MDU could possibly impact 90 other units and be a potential source of confusion between mutual aid partners assisting in the deployment of a MDU. Since initial delivery of the MDUs, several have been deployed for training, exercising and real-life incidents. These deployments have made it necessary to assess the status of the components that comprise the MDU network. In addition, there have been improvements to a number of components that are part of the MDU operation. Therefore, it is imperative that a complete assessment is conducted to ensure the state of readiness of the system and interoperability of the system at all times.

3) Need to better evaluate and document the continued exercising of the activation, utilization, communication and operation of the MDU system under the principles of the NIMS. Drills and exercises are carried out at the state, regional and local level and are generally multi-disciplinary as well as multi-jurisdictional. Hospitals will each conduct at least one mass decontamination (MDU) exercise in conjunction with their local fire department this year. In addition, MDPH requires that the fire departments cross train with their hospital partners, local community and mutual aid counterparts and periodic exercises will be conducted that will involve the activation and notification system, which would be used to initiate the deployment of mass decontamination companies. In years past, exercise activity has not been well documented. It is difficult to track progress and implement improvements unless such exercise activity is adequately documented through after action reports (AAR).

4) Need to address the decontamination protocols for at risk populations, particularly children, pregnant women, senior citizens and other individuals who have special needs in the event of a public health emergency.

Program Outcome Objectives

Level One Sub-Capabilities

1) Interoperable Communication System Objectives

Overall goal: To develop a redundant and interoperable statewide communication system that allows connectivity during an emergency between hospitals, other healthcare facilities and state and local health departments, emergency medical services, emergency management agencies, public safety agencies, neighboring jurisdictions and state and federal public health officials. MDPH must regularly conduct outreach to healthcare partners, update and test elements of this system to ensure its effectiveness during an emergency.

Objective #1: Participation in Statewide Communications Interoperability Plan (SCIP) Development

FFY07 ASPR funding will support the SCIP to provide strategic direction for all future state, local and regional interoperability projects and purchases in the Commonwealth. As a result, the State Interoperability Executive Committee will work with all key stakeholders to ensure that the individual interoperability plans that exist at the state, regional and local level will be in unison with the five-year plan as well as adhere to DHS SAFECOM requirements, including NIMS compliance. MDPH is actively participating in this process, representing the hospitals, EMS and public health disciplines – as well as in development of the NTIA grant application for interoperability funding. The allowable expenditures for the NTIA Grant Program align with the lanes of the Interoperability Continuum as set forth in the SAFECOM Grant Guidance (i.e., governance, standard operating procedures, technology, training and exercises, and usage) and provide broader context for understanding the complexities associated with technology acquisition, deployment, and training. The central components of this plan include (i) leveraging available state telecommunications assets to improve interoperability statewide; (ii) providing guidance for the development of standard operating procedures when implementing interoperable communications statewide; (iii) planning risk mitigation from single points of failure in the public safety network; and (iv) ensuring that the plan remains in conformance with DHS requirements; among many others. The initial application for NTIA funding will be

submitted in September 2007 and the final statewide SCIP plan will be completed by November 1, 2007.

Objective #2: Continue to Support the Massachusetts Hospital Association to Provide Communication and Programmatic Support

Objective #2a: Maintain Current Emergency Contact Flash Drives

DPH and the Massachusetts Hospital Association (MHA) have issued Emergency Preparedness flash drives to hospital and other emergency preparedness partners. MDPH directed emergency personnel to place the drives in either in their institution's Emergency Operations Center or in possession of staff responsible for disaster mobilization. These portable, rugged, keychain drives contain emergency contact directories, other emergency preparedness information and internet-based links for the systems used to manage healthcare assets during an emergency. Having this information readily available on portable flash drives will provide the MDPH, Massachusetts Hospital Association (MHA) and their healthcare partners with convenient access to emergency contact information. When this information is easily accessed, potential delays in the mobilization of emergency preparedness personnel in the event of a disaster or emergency are minimized. MDPH has ensured that the drives are automatically locked when removed from the computer and a password is required to unlock the secured data. MDPH and MHA must continue to update these drives and train those in possession of this device in downloading updates as they arrive. At a minimum, the directory is updated biannually. This activity is ongoing.

Objective #2b: Maintain Updated Emergency Preparedness Listservs

MDPH uses the emergency preparedness and response listservs to notify emergency response staff of incidents and of information of interest. MDPH has populated these lists with the email addresses of hospital emergency preparedness staff, regional coordinators, VA/National Disaster Management System staff, the Massachusetts Hospital Association, the MA League of Community health Centers, State Emergency Operations Center, public safety, MDPH staff and other healthcare partners. MDPH continues to add participants to the listserv and makes it available as a communications device for all those emergency preparedness partners that respond to public health alerts. If an incident occurs after normal business hours, MDPH response staff has been equipped with wireless computers and handhelds so MDPH can push out alerts to the listserv and HHAN, mentioned below, after normal business hours. MDPH must continue to update these lists and plans to build lists out for additional groups, particularly those that would respond to populations with special needs. During the next fiscal year, MDPH will focus on the inclusion of long-term care administrators and local health staff. MDPH incorporates listserv messages in its monthly bed count and satellite phone drills as a way of informing hospitals that the drill is commencing. Message confirmation helps MDPH monitor notification success and failure rate. This activity and outreach are ongoing.

Objective #3: Update Health and Homeland Alert Network (HHAN) Emergency Preparedness Groups and Nextel/Verizon Systems

MDPH uses the HHAN and Nextel/Verizon push-to-talk as redundant methods of communication to send alerts to hospitals other healthcare partners. HHAN participants have populated their profiles with their contact information, including home phone, cellular, email, work phone, etc. The HHAN will use this information when attempting to alert individuals and will continue through the various contact methods until users confirm receipt of the alert. MDPH assigns HHAN users to one or more roles. This enables MDPH to alert users by the

function(s) they perform, rather than search for and select each individual who needs to receive an alert, saving valuable time in emergencies. In addition, MDPH assigns security and permissions with the HHAN to roles or role groups, rather than to individual users, for easy organization and maintenance. MDPH has also issued hospitals and other healthcare partners Nextel or Verizon push-to-talk phones that MDPH has incorporated into a specific HHAN role. MDPH has grouped the phones' push-to-talk radio functionality by hospital region. This serves as a redundant form of hospital communication. During the next fiscal year, MDPH will focus on adding responders to the HHAN system, training users and maintaining current contact information. This activity and outreach are ongoing. MDPH also incorporates HHAN alerts in its monthly drills. MDPH tests the Nextel/Verizon text messaging during the monthly drill and push-to-talk each remaining week.

Objective #4: Assist All Participating Hospitals and C-MED Centers Install, Operationalize and Develop Usage Protocols for Emergency Preparedness Satellite Phones

MDPH satellite phones have been purchased and issued to all participating hospitals, EMS dispatch centers, EMS Regional Directors and MDPH and would be used as a last resort should regular forms of communication become inoperable. Hospitals received a fixed rooftop antenna model so that staff can use the phone inside their facility, with suggested install in their hospital EOC. Satellite phones will help facilities communicate if isolated and without power. MDPH purchased (Mobile Satellite Ventures) MSV units for key MDPH, MHA, and C-Med emergency response staff. MSV satellite units have talk group functionality, thus adding a level of redundancy to this portion of the communications system. During the next fiscal year, MDPH and its satellite vendors will continue to assist hospitals with their hardwire installation as hospitals are currently in the process of completing this function. In addition, MDPH is working with the Metro Boston Homeland Security Region to develop standard operating procedures for talk group use during an emergency as that group has also purchased the push-to-talk MSV technology. MDPH and MBHSR will develop the talk-group SOPs during this next fiscal cycle. Testing of the satellite phones is ongoing and MDPH incorporates their use in its monthly drills.

Objective #5: Operationalize Voice-Over-Internet-Protocol System

Internet Voice, also known as Voice over Internet Protocol (VoIP), is a technology that allows one to make telephone calls using a broadband Internet connection instead of a regular (or analog) phone line. MDPH has recently purchased equipment and service to create a closed data network that will provide a redundant mechanism of communication between C-MED dispatch centers. When installed, MDPH will add VoIP to the communication protocols. VoIP will provide another means of communication for the MDPH, EMS and hospitals to manage resources needed to respond to a mass casualty incident. C-MED centers should have VoIP hardware by the end of 2007. When operational, MDPH will add VoIP tests to its monthly drill schedule. Testing and maintenance of this system will be ongoing.

2) Bed Tracking System Objectives

Overall goal: To enable hospitals and EMS to report real-time elements of hospital capacity in order to assist healthcare partners in making the best transport decisions possible when managing every day activity and mass casualty incidents and/or surge. The Budget Narrative details a number of contracted services that are relevant and necessary for the hospital and EMS interoperable communication activities that are spelled out above. Primary contractors for these activities include the Massachusetts Hospital Association and Strategic Solutions, LLC.

Objective #1: Add Emergency Department Capacity

Since available hospital capacity is problematic for many emergency departments and for C-MED centers directing ambulance transports, MDPH plans to build out the Hospital Capacity Website by adding an Emergency Department Capacity feature. Each hospital would be able to logon to the system and enter their ED's ability to accept red, yellow and green patients should a mass casualty occur. Being able to view ED status would assist EMS in making better transport decisions. MDPH will create a separate section to the website for ED Capacity and hospitals will be able to enter numbers of patients they could potentially provide care for the following triage designations:

- RED – Immediate treatment needed. Life threatening situation.
- YELLOW – Treatment needed but are not as severe as RED.
- GREEN – Treatment needed, but their injuries are considered minor and not as severe as RED or YELLOW. Person is ambulatory.

MDPH would then push this and other critical information regarding the incident and hospital ED capacity to users via the HHAN and RSS feeds mentioned below. MDPH must conduct outreach and trainings to include all EMS services on the notification end of hospital capacity alerts. Incorporating those that would respond to at-risk populations transport and care into this system would be invaluable. MDPH believes this new feature that will added to the Hospital Capacity Website will augment the HAvBED project by further assisting all parties by providing real-time situational awareness of ED capacity and overall hospital capacity, particularly during a mass casualty incident. It is another tool that will help hospitals avoid the routine use of diversion as an internal control of patient volume. ED Capacity drills will be incorporated into MDPH's weekly hospital and EMS emergency preparedness drills and any full-scale exercise planners that wish to utilize this feature. This feature should be completed by mid-grant cycle.

Objective #2: Add a Failover Server

The current system has a single firewall and server, which leaves the system susceptible to a point of failure. MDPH proposes to add a new server, locally in Massachusetts, possibly teaming with our Massachusetts Emergency Management Agency (MEMA) and their data center. There are two distinct phases in implementing the failover server, the first being the installation and configuring of database director, firewall and server software. The new server would have a similar firewall protecting the system from unauthorized access. In addition, the new server will use a CISCO Distribution Director to detect when the primary server is inaccessible and automatically failover to the backup server. MDPH will configure the server with the same IP address, so that the switch is seamless to end-users. The second phase of this project will be installing and configuring the Hospital Capacity Website application and database to the new failover server thus creating a cloned system. The new server is a much-needed element in communications redundancy for the HAvBED bed-tracking project. This feature will be added by January 2008.

Objective #3: Simplify and Facilitate Notification and Alerting Process for Hospital Capacity Website's Users:

- Integration with the Health and Homeland Alert Network (HHAN) and WebEOC Systems – Integration of Hospital Capacity System, the HHAN and various WebEOC systems will allow automatic notifications from the Hospital Capacity Website, through the HHAN alerting mechanisms, to communication devices (mobile communication devices, email, fax) so MDPH keeps key emergency personnel informed of current capacity and open bed status. Programmers for the HHAN, WebEOCs and Hospital Capacity websites will integrate the systems in two phases: an investigative phase and

implementation phase. Given there is a channel open between the capacity application and the HHAN, it is possible to add alerts that go beyond capacity statuses and open bed quantities. For example, there could be a series of alerts should MDPH request surge bed counts or supply tracking. Pages to collect this information exist, but are not routinely active. Should MDPH activate them, the system will generate a series of alerts requiring all appropriate users to update capacity information online. MDPH must also follow-up with HHAN training and exercises/drills for those hospital staff that report bed and other hospitals counts, but do not regularly use the HHAN.

- RSS (Rich Site Summary) Feed – RSS feeds provide web content or summaries of web content together with links to a full version of the details, making it possible for users to monitor a website in an automated manner rather than checking it manually. Users can read RSS content from their email with simple software called a "feed reader." The user subscribes to a feed by entering the feed's link into the reader or by clicking an RSS icon in a browser, which initiates the subscription process. The reader checks the user's subscribed feeds regularly for new content, downloading any updates that it finds. An RSS feed from the Hospital Capacity website would allow users to receive status updates such as the number of open beds at a particular hospital or region and a facility's diversion status. This feature to the Hospital Capacity Website will augment the HHAN integration, described above.
- Mobile Device Support – With the popularity of Blackberry and Smartphone devices, small screen data options would assist users of the Hospital Capacity site and this mobile technology to view crucial hospital information via a handheld device. MDPH will incorporate small screen data options for users to download.

These features should be completed by the end of the grant cycle.

Objective #4: Add GIS Mapping

Mapping of hospitals, their diversion status and a drill-down to bed counts, ED capacity and medical inventories and supplies will assist MDPH and EMS in everyday EMS transport and during an MCI. MDPH plans to create maps with pushpin graphic indicators for each facility. A user will be able to click on the pushpin and drill down to a screen that contains facility summary information including capacity status, staffed and surge bed capacities and available medical equipment and supplies. The pushpins will be color-coded to match ED status and to highlight various levels of concern. New screens can be created, on the fly, to summarize groups of hospitals by region, urban area or geographic proximity to an MCI, thus aiding key emergency preparedness and response and transport staff during an incident. This feature should be completed by the end of the grant cycle.

Objective #5: Increase Website Security

There is an ongoing threat of unauthorized users attempting to gain access to the MDPH system and thus, a true need for added security measures. MDPH will add additional security measures to the website such as password reminder and aging code. MDPH would set a time limit on active passwords and install code that would remind users to reset the password when expired. This feature should be completed by the end of the grant cycle.

3) ESAR-VHP System Objectives

Overall Goal: to develop and maintain a secure electronic database of health care personnel who may want to volunteer to provide aid in an emergency which has the capability to register, credential and assist in deployment in the manner outlined by the ESAR VHP Guidelines.

MSAR objectives are broken out as *program* objectives and *system* objectives. The latter includes both IT systems as well as the definition of related supporting business processes that may not be automated.

Objective #1: Expanded Volunteer Recruitment

Program Objectives:

- Continue general volunteer recruitment. This will be staffed by the program coordinator and IT coordinator constituting an ongoing task on their schedules. The continued current recruitment of new volunteers for all required occupations.
- MDPH will again contract with the Massachusetts Medical Society for continued support of MSAR. MMS has developed and distributed marketing materials for the program. Over the past year, MMS assisted with mailings of MSAR information to health care professionals, developed an MSAR toolkit for hospitals, and a toolkit for non-hospital based facilities and providers is currently in development. During FFY07, MMS will continue to market the program, will participate in the planning of the Best Practices Summit, and will produce and distribute a quarterly MSAR Update to all registered volunteers.
- Expand MSAR partner base to facilitate expanded recruiting, especially with newly identified occupations. This effort is dependant on the receipt of new guidelines. This effort will be staffed by the program coordinator with tasks related to the development and distribution of marketing material sub-contracted to MMS. This will involve contacting and creating working relationships with organizations representing the newly identified occupations, including professional licensing boards and developing MSAR recruitment campaigns with those organizations.
- Expand recruiting efforts to include translators and other volunteers that specialize in addressing the needs of “at risk” populations by partnering with organizations that represent these groups. One example of this will be sending recruitment materials to the medical translators trained in emergency preparedness by the Boston training institute, DelValle, over the past year.
- This year we will add a field to track volunteers who may be able to assist in a mass fatality event
- Through an Interagency Service Agreement with the Department of Mental Health, we will integrate the roster of trained crisis counselors with our ESAR-VHP/MSAR database.
- Increased visibility and understanding of MSAR in the volunteer population. Under FFY07 funding, we will continue to contract with Regina Villa, Associates to provide statewide coordination of our Medical Reserve Corps, and to support integration of the MRCs into the MSAR program. In addition, our program coordinator and will continue to attend conferences, meetings of volunteer organizations, hospital grand rounds and similar events.

System Objectives

- Continued operational support for the Web Site, databases and training systems. This is ongoing work on the part of the IT coordinator and the sub-contracted web hosting

service. Continued adherence to service level agreements for system availability and performance.

Objective #2: Credentialing of Volunteers

Program Objectives:

- Continue credentialing existing occupations through licensing boards and Massachusetts hospitals
- Work with professional licensing boards and other partners to credential new priority occupations
- Implement background checks of our volunteers. This effort will be staffed by the program coordinator and MDPH personnel responsible for background checks. Additional impact on the IT administrator may be expected but should be minimal. This will be measured by implementation of background checks, and appropriate storage and recording of information from those processes.

System Objectives:

- Add additional ESAR VHP professions and ability to credential these groups and assign them to appropriate levels. These tasks will include any required data conversion and regression testing of the production system.
- Improve electronic data transfer to automate credentialing with both our local and federal partners. This will include completing the MA Nurse License credentialing that has been prototyped in a proof of concept as well as additional interfaces as these are release by QRS, the ASPR national vendor on credentialing that is currently brokering relationships with credentialing organizations.
- Increase access of information for our participating partners where appropriate. This functionality is not defined in any current specification, but has been mentioned as evaluation criteria for this fiscal year. This is anticipated work, waiting prioritization after receipt of the specification.

Objective #3: Volunteer Retention

Program Objectives:

- Develop volunteer retention strategy and implement retention programs. This effort will be staffed by the program coordinator with tasks related outreach including the development of newsletters and other materials sub-contracted to MMS. Successful implementation of programs and positive feedback from volunteer surveys will be used as an indicator of success. This work is planned for the second and third quarters of the fiscal year.
- MDPH is expanding training opportunities for MSAR volunteers to increase competencies, and enhance recruitment and retention of volunteers. MDPH will provide $75,000 to the DelValle Training Institute, responsible for the emergency preparedness and NIMS trainings to Boston area hospitals and responders. This funding will ensure access to DelValle programs to MSAR volunteers outside of Boston, and will support additional trainings for Medical Interpreters, and the active recruitment of all previously trained interpreters into MSAR.
- MDPH will fund ABLS online trainings for 240 participants, and will fund the practical, hands-on sessions for those participants through the use of certified ABLS instructors at one of our hospitals. All participants accessing these trainings will be required to join the MSAR program, providing a base of health care professionals trained in burn care who may be available to assist in a major burn event.

- MSAR volunteers will be provided with information on NIMS trainings, and the database will track all trainings

Objective #4: Continue Development of Activation and Deployment Protocols and Exercise
Program Objectives:

- Hospitals will develop plans this year to integrate MSAR volunteers into their operations. These plans will also cover personnel received through a regional hospital mutual aid agreement.
- Develop exercises to test deployment. This effort will be staffed by the program coordinator with the assistance of the Hospital Preparedness Coordinator. The planning of and successful implementation of training exercise, preparation of after action reports, and subsequent system and program modifications based on the after action report will indicate success.

Systems Objectives:

- Define and develop enhanced query and reporting capabilities. This will include defining advanced queries to support activation and deployment as well as any other program management requirements.
- Define and develop system activation and deployment functionality including volunteer query functionality, initial contact and response management.
- Investigate integration with the HHAN and implement an MSAR/HHAN interface after a successful proof of concept.
- Develop exercises to test system availability and capacity in various scenarios. These exercises will include both a drill using the real system as well as tabletops and drills on disaster recovery for the system, and continued operability with infrastructure failure including loss of the internet, loss of communications between MDPH and the web hosting facility etc. These will be planned in the first quarter of the fiscal year and run throughout the year.

4) Fatality Management Plans Objectives

Overall goal: To further planning toward a comprehensive, integrated mass fatality plan and to ensure inclusion of mass fatality planning in hospital disaster plans.
Objective #1: Creation of a State Expert Panel on Fatality Management
MDPH will convene an expert panel to develop the planning process and objectives, working through the HSPD8 working group to identify all relevant partners. Mass Fatality planning must integrate multiple state agencies as well as local and state officials and stakeholders groups. At a minimum, this planning should include the Office of the Chief Medical Examiner, the State emergency management agency, the state Department of Public Health, local health directors, emergency medical services, municipal elected officials, hospitals, law enforcement, funeral directors, crematoriums and cemeteries, and environmental health. MDPH will work through the HSPD8 working group to identify all relevant partners, and will convene an expert panel to develop the planning process and objectives. The expert panel is expected to continue their work throughout the FFY07 funding period.
Objective #2: Contract to Assist the State Expert Panel
In order to ensure the capacity to conduct the necessary planning in an expedited and comprehensive manner, MDPH will fund a contract to assist the expert panel and its' activities. The planner will review the Massachusetts 2004 plan, conduct a comprehensive review of existing plans from other states and countries, and provide the expert panel will a report outlining

gaps and recommendations. The expert panel will prioritize the planning goals, process, and timeline. This activity is expected to be completed by February 1, 2008.

Objective #3: Development of a Fatality Management Toolkit for Communities

The mass fatality planner will revise the state plan as directed by the expert panel. The planner will work with the MDPH legal preparedness contractor and the Bureau of Environmental Health to generate a draft toolkit for local fatality management. The toolkit will be reviewed by the expert panel, who will be responsible for disseminating the draft to their stakeholders, and providing comments back to the planner. The final tool kit is expected to be complete by June, 2008.

Objective #4: Integration of Planning

The fatality management expert panel will ensure that the mass fatality plans are incorporated into the state CEMP following the revision of the existing plan.

Objective #5: Pandemic Fatality Planning

MDPH will provide all hospital based clusters the peak number of deaths based on MDPH planning assumptions anticipated to occur in hospitals and at home during a pandemic. MDPH will also add a mass fatality section to the Hospital Based Cluster Planning Guide. MDPH will continue to work with the Interstate Pandemic Mass Fatality workgroup. Pandemic fatality management planning is expected to be an on-going activity during FFY07.

Objective #6: Healthcare System Preparedness

Objective #6a: Hospitals - MDPH will direct hospitals to submit current mass fatality plans to their regional coordinator by January 15, 2008. These plans will be evaluated and recommendations on plan improvements will be made by the regional hospital preparedness coordinator. Regional fatality management planning will be addressed at monthly regional hospital meetings. Hospital will be expected to identify current fatality capacity (process and personnel to certify deaths and inform next of kin, morgue capacity, tracking of belongings and bodies, staff to perform autopsies) and address surge plans for a mass fatality event.

Objective #6b: Local Public Health - Local health departments play a pivotal role in fatality management. Their participation will be essential to ensure adequate planning and implementation. The ASPR Hospital Preparedness Coordinator will work very closely with the PHEP program at the state level to coordinate the funding and deliverables for mass fatality management for local public health. At a minimum, local health will be represented on the Mass Fatality expert panel and in cluster based planning, and will have the opportunity to participate in the development of the Fatality Management Tool Kit for Communities. Activities under this objective are expected to continue throughout the duration of the grant year.

Objective #7: At-risk Populations

Some populations will require special planning; those who are too poor to pay for burials; those with language or other communication barriers; religious and ethnic groups with particular needs around funerals and burials; and others. The contracted planner will consult with stakeholder groups and the mini-grant program to support planning for at-risk populations, and will include these considerations in the overall planning process.

Objective #8: ESAR-VHP

MDPH will establish a field in the MSAR database to identify any personnel who may be of assistance with a mass fatality response. This activity will be conducted by MDPH MSAR staff and will be completed by March 1, 2008.

Objective #9: Exercise of Plans
It is unlikely that the state or the communities will be prepared to exercise their mass fatality plans during this grant year. However, should plans be completed in time, mass fatality objectives may be included in other exercises being funded under FFY07, such as the hospital evacuation, ISCU, or hurricane exercises. Planning is expected to be completed to ensure a full spectrum of mass fatality exercises in FFY08.

5) Hospital Evacuation Plans Objectives
Overall Goal: Evaluation and refinement of hospital evacuation plans to ensure they are based on an integrated, unified community, regional and statewide response that ensures the safe and respectful movement of all patients and the safety of personnel, visitors and family members impacted by the evacuation.
Objective #1: Collect all hospital evacuation and HVA plans
These plans will be centrally stored at MDPH HPP headquarters and regional offices. The hospital MOA for FY07 will require all hospitals to provide their HPP regional coordinator with copies of their HVA, evacuation plan, and an LEPC form by December 1, 2007. The LEPC form required to be completed and submitted will be provided as an attachment to the MOA. The form will include contact information for local police, fire, EMS, health and emergency management officials as well as attestations from the hospitals that they have shared or attempted to share their HVA and evacuation plan with local public safety/emergency management officials and that they are engaging or attempting to engage in integrated community preparedness and response planning with such officials. These documents will be catalogued and filed at both MDPH Headquarters HPP office in Boston and the HPP regional offices. The MOA will specify that the evacuation plans, HVA and LEPC information will remain under the control of HPP personnel and not be released to the public. The MOA will also specify that the plans may be shared with other government entities for preparedness planning and response purposes and may be shared with private vendors for exercise preparation and evaluation purposes. The MOA will specify that if documents are shared with any outside entities, precautions will be taken to insure their confidentiality including stamping them as confidential, non-public documents and if shared with a private entity, the private contractor receiving the documents will be required to sign a non-disclosure, non-distribution agreement.
Objective #2: Conduct a Gap Analysis

Objective 2a: Community Integration - Under FFY07 funding, we will identify gaps in hospital evacuation plans regarding successful integration into community and regional based preparedness plans and develop corrective action plans. The most effective way to test and evaluate evacuation plans is through simulated exercises. MDPH will contract with a vendor to design, coordinate and evaluate a facilitated hospital evacuation exercise to be held in each of the six hospital emergency preparedness regions. The vendor awarded this contract will be required to demonstrate proven expertise in the field of hospital evacuation planning and evaluation. The exercises will be conducted in the months of January and February of ’08. Invited participants will include hospital and local public safety officials, regional EMS, public health and local and regional emergency management. The format will be that of a facilitated tabletop with facilitation being provided by the vendor with assistance from MDPH HPP personnel. The vendor will be required to work with HPP personnel and the MDPH Exercise Coordinator to formulate exercise goals and objectives that will include exercising of individual hospital

evacuation plans as well as the regional hospital mutual aid MOA, use of ICS and recognition of the needs of at risk populations. The vendor will be responsible for producing exercise situation manuals prior to and a formal after action report (AAR) for each exercise to be completed no later than 60 days after the exercise. Copies of the after action report will be made available to all participants. HPP regional coordinators with the assistance from HPP central staff will devote a regional hospital meeting to reviewing the AAR with their hospitals and coordinating development of corrective action plans. It is anticipated that this will take place in April and May of '08. Hospitals will be asked to submit presentations on the evacuation exercises for the Best Practices Summit described under ACS Objective #6.

Objective #2b: Regional and Statewide Integration - Gaps in hospital evacuation, community and regional preparedness plans regarding successful integration into multi regional or statewide preparedness plans will be identified. The regional facilitated tabletop exercises referenced in Objective#2a will provide a means for hospitals to evaluate their evacuation plans; local public safety to evaluate their response to a hospital evacuation; and MDPH to evaluate the effectiveness of our regional hospital mutual aid plans. As evidenced by Hurricane Katrina and other events of major significance, it is essential to prepare for events that impact entire regions or multiple regions within the state. In June or July of '08, MDPH will conduct a functional exercise to test cross regional capacity and capabilities. This exercise will involve multiple agencies from multiple disciplines from multiple regions within the state. MDPH will contract with a vendor to work with the MDPH Exercise Coordinator and HPP personnel to formulate exercise goals and objectives, produce exercise situation manuals, coordinate facilitation and evaluation of the exercise and produce a formal AAR. The functional exercise will be designed to allow MDPH to primarily evaluate plans and systems in place for hospital evacuation. It will also incorporate testing, ESAR-VHP, patient/bed tracking, and interoperable communications including the hospital/EMS satellite phone network installed this year and the expansion of MDPH's communication system to include new community level partners such as local public health and long term care facilities. The scenario will most likely involve a hurricane that severely damages an entire region's medical, communications, government, utility, residential and commercial infrastructure. The simulated event will provide for the stand up of a Regional Medical Coordinating Center (RMCC) in at least one of the non- impacted regions and will test the newly created MDPH severe weather response protocol and how well it integrates into the State Comprehensive Emergency Management Plan including stand up of an MDPH Department Operations Center at MDPH Headquarters with liaisons to the ESF 8 position at the State EOC and RMCC. The exercise will be conducted with all agencies utilizing NIMS protocol ICS. MDPH's partner agency, the Department of Mental Health will participate and exercise their crisis counselor response network to assist with at risk populations and members of the general population and responders psychologically traumatized by the event. Our partner agency, the Department of Fire Services, will participate and exercise the Statewide Mass Decontamination Plan including simulating deployment of mass decontamination units. The participating hospitals will have earlier in the year participated in and received an AAR from the tabletop exercise described above and will therefore be particularly ready to further test their evacuation plans and see how they respond to a situation in which normal community and region based

resources such as pre-identified receiving facilities will not be available. Participating in this exercise and the after action process will enable those hospitals to even further revise and improve their existing evacuation plans to include very large scale incidents.

Objective #3: Provide Competency Based Training on Evacuations

Training will be provided to hospital and community responders on evacuation ICS and safe patient preparation and movement. The MDPH training liaison to DFS will work with the DFS Fire Academy training infrastructure as part of the MDPH/DFS ISA to develop and present two training classes related to Hospital Evacuation Operations.

During a hospital evacuation, hospital staff will be working side by side with local police, fire and EMS responders. Additionally, many non-clinical staff within hospitals such as security, maintenance, medical records and housekeeping will have critical roles in an evacuation. It is therefore important to create a class accessible to all levels and disciplines of hospital personnel as well as local fire, and EMS responders that will be called to participate in an evacuation incident. The most practical and efficient way to deliver a course to such varied audiences is to develop an instructor-training program that will enable DFS to develop a cadre of trained instructors able to reach our targeted audiences.

The Practical Hospital Evacuation Instructor Training Program: will be designed as a one day, 6-hour instructor training program. Upon completion of this program, participants will have the knowledge and skills to teach a 2-hour hands-on competency based evacuation training. Participants will learn and demonstrate the proper technique to safely vertically and horizontally evacuate patients as well as teach this tactic to their hospital personnel. Participants will also understand the necessity of interagency collaboration with hospitals, police, fire, and EMS during an evacuation. This course will be developed, piloted and offered six times this year. The Incident Command System for Hospital Evacuation will be designed as a 2-day program including didactic and tabletop exercises. It will be designed for hospital, fire, EMS, and police who will be involved in the management of a hospital evacuation. This class will provide the target audience with an understanding of command operations during a hospital evacuation. Students completing the course will be able to describe the aspects of a hospital evacuation; explain the basic command procedures and ICS organizational structure; identify various resource levels, types, and capabilities used in hospital evacuation; identify critical factors and issues that affect scene management; describe all unique operational considerations used during a hospital evacuation; describe all response operations phases associated with a hospital evacuation; and describe the technical evacuation expertise and equipment required for safe operations and effective incident management. This class will provide the tools for hospital personnel to develop or further improve a hospital evacuation plan with an interagency approach including evacuation ICS org. charts and sample job action sheets. As a pre-requisite – students will need to have completed ICS 200 prior to taking this class. This course will be developed this year, and offered in FFY 08.

Level Two Sub-Capabilities

1) Alternate Care Sites (ACS) Objectives

Overall goal: To develop a statewide plan for local community based medical surge capacity for both pandemic and all hazards events to ensure a timely, coordinated, and maximally effective response.

Objective #1: Finalize Hospital Based Clusters

While the hospital community has completed this process, more time is needed to allow local health departments and state and local public safety to review community assignments and make recommendations for changes. The regional hospital preparedness coordinators will provide all cluster information to public health, fire, police, emergency management, emergency medical services, medical reserve corps and public works departments. They will attend meetings and facilitate dialogue to ensure that all parties are fully knowledgeable about the cluster assignments and have had a chance to weigh in. Any issues that cannot be resolved at the local/regional level will be referred to the Hospital Preparedness Coordinator. Once this process is complete (100% of cluster assignments agreed upon), GIS maps of the final clusters will be created and disseminated to all participating entities. Hospitals will use their allocations to support the planning process, and Homeland Security funding to clusters will support the engagement of public safety in this effort. Public health and Medical Reserve Corps participation will be coordinated through PHEP funding. This process is expected to be complete by February 1, 2008.

Objective #2: Engage Public Safety in Refinement of Cluster Plans

On the request of public safety, MDPH led the development of the Pandemic Investment Justification this year. If funded, public safety and local emergency management will receive Homeland Security funding to participate in hospital based cluster planning. A pandemic planner position will be funded, and each cluster will receive a funding allocation specific for cluster based planning. Importantly, public safety and emergency management will be expected to participate, facilitating the efforts of hospitals and health departments to engage them in the local planning efforts. At the state level, we will be working with our public safety partners (or a "Partnership") to refine the draft operations template for ISCUs that was developed during this past year and released to both the HSPD8 Interagency workgroup and the Statewide Surge Committee for comment. MDPH understands the importance of preserving public safety mutual aid operations, and seeks only to identify common planning for those elements of the cluster response that rely on public safety for the medical surge operations. This activity will be coordinated by the planner position funded through Homeland Security (subject to Homeland Security funding approval), and the Hospital Preparedness Program staff. It is expected to be on-going throughout the grant year, and will be funded through the Homeland Security Pandemic Investment Justification (pending grant funding approval) and the hospital ASPR allocations.

Objective #3: Develop Guidance and Template Plan for All-Hazards ESCU

Objective #3a: Complete planning template for an all hazards ESCU - This is expected to be completed during this grant year, and will be conducted by MDPH regional hospital planners working collaboratively with public safety through the planner funded by Homeland Security as well as the HSPD8 working group, the Statewide Surge Committee, and the Interstate Surge workgroup. Included in the planning will be NIMS compliant ICS charts and job action sheets, and integration of MSAR activation and coordination. Our legal consultant will be assisting with the development of Alerted Standard of Care guidance and other legal preparedness needs. Mass Colleges On-Line will continue to provide on-line training capability and capacity enhancements for pandemic preparedness via an Interagency Service Agreement with Northern Essex

Community College. Once the ISCU template has been adapted to All Hazards use, the local plans will need to be integrated or annexed to the community emergency management plans, and all parties will need to be trained. Finally, plans will be exercised and corrective actions identified (see exercise section).This activity will continue throughout the funding period.

Objective #3b: At-risk Populations - Planning to ensure preparedness and access to the response for medically vulnerable at-risk populations will be addressed by including emergency management and representatives of those populations in all aspects of this planning, both at the local level and at the state level. This activity will be on-going, and will be facilitated by HPP regional coordinators. A mini-grant program will provide funding to community based grassroots organizations to assist with preparedness efforts for these populations. In addition, we will be working with the Department of Mental Health to integrate their roster or trained crisis counselors into our MSAR database, and provide information to local public health and emergency managers on how to request and receive these volunteers.

Objective #4: Resourcing of Cluster Plans

MDPH anticipates passage of a state funding request during 2007. In preparation for the pre-positioning of ISCU assets and ventilators purchased thorough state funding, MDPH will survey hospitals, ISCU sites, and communities for storage capability and interest in stockpiling locally. An allocation matrix will be developed based on survey results and presented to hospital based cluster planning groups for comment. This activity will begin once state funding request is approved.

Objective #5: Develop Matrix of Exercises

Currently, there is a spectrum of ISCU planning and preparedness across the Commonwealth. Some clusters are well organized, have all the partners at the table, and meet on a regular basis. They have fairly well-developed plans, and some have conducted tablet tops. Other clusters have not yet organized themselves, or are somewhere in between. The MDPH exercise coordinator will work with a contracted vendor to develop the full spectrum of exercises available to hospitals, from workshops to a full scale exercise. While it is unlikely that we will have received our state funding to resource our plans in sufficient time to do a full scale exercise during this grant year, we expect that some hospitals will be able to conduct a functional exercise this year. For those hospital clusters that are in the earlier stages of planning, a workshop and table top will be required by the end of the grant year. All clusters will be required to address planning and response for at-risk populations in their exercises, and all will be required to have representatives of those populations in the planning and implementation of exercises. Each hospital will be expected to use their ASPR allocation to support this objective.

Objective #6: Best Practices Summit

All hospitals will be invited to attend a statewide Hospital Best Practices Summit. A vendor will be hired to plan and facilitate the event. Hospitals will submit best practices from their planning, preparedness, and responses to real events and exercises. MDPH will review the submissions and will select topics for presentations and/or poster displays. The summit will be held in the spring of 2008.

2) Mobile Medical Assets Objectives

Overall Goal: Identify, at minimum, one site per region that is capable of hosting a Federal Medical Station.

Objective #1: Federal Medical Station
MDPH will work with the Massachusetts Emergency Management Agency ESF6 workgroup to identify potential sites for a Federal Medical Station in each planning region.

3) Pharmaceutical Caches Objectives
Overall Goal: Continued maintenance and upkeep of pharmaceutical caches sufficient to cover hospital personnel (medical and ancillary), hospital based emergency first responders and family members associated with their facilities for a 72-hour time period.
Objective #1: Cache Survey
Confirmation that all hospitals have sufficient up to date antibiotics to treat staff and immediate family members of staff for three days. MDPH will again contract with a vendor to conduct a hospital survey, which will include questions regarding the hospital pharmaceutical cache.
Objective #2: Cache Protocols
MDPH HPP staff will establish formal protocols for hospital reporting of pharmaceutical cache inventory via the web based hospital diversion/bed reporting system.

It is hoped that the system wide inventory management system when developed and implemented will provide a long term solution to tracking inventory and supplies including pharmaceuticals held by hospitals within their force protection caches. In the interim, the web based bed reporting system is very easily adaptable to include the ability to report pharmacy cache inventories. The system is designed to allow MDPH HPP personnel to real time request specific items to be reported by hospitals via the website. For example, if a major burn incident were to occur anywhere in the state, MDPH could poll the hospitals via this reporting system to determine instantaneously the levels of burn supply inventory simply by adding the requested items such as sterile sheets and saline as query items and alerting the hospitals to report their pars on line in the appropriate reporting column on the web site. The way the system is currently configured, MDPH HPP personnel can real time "on the fly" add up to 10 items as new columns to be queried with no cost involved. Therefore it would be very easy to add reporting columns for pharmaceuticals and ask hospitals to report the exact levels of their inventories. There are no technology or cost based needs to make this reporting system effective. The need to making this system effective is policy based. No formal policy or protocol exists regarding hospital reporting of their pharmacy cache inventory.

MDPH HPP regional coordinators will discuss on-line pharmaceutical cache reporting with their hospitals at monthly regional meetings. The concept will be explored to confirm that no hospital operational barriers exist to implementing a voluntary reporting system and determine what information should be collected to best contribute to preparedness efforts. (If barriers do exist such as resistance due to proprietary concerns, HPP senior staff will determine if programmatic preparedness needs require MDPH mandate such reporting.) Based on input the coordinators obtain form their hospitals, HPP senior staff in consultation with the coordinators will develop and distribute to hospitals, formal cache reporting protocols. MDPH will conduct quarterly inventory reporting via the web site with notice provided to the hospitals. This will not only confirm par level inventories statewide but will also serve as an exercise of the web based reporting system.

Objective #3: Purchase of Antiviral Caches by Hospitals

Newly added for possible inclusion into the hospital pharmaceutical cache are the neuraminidase inhibitors, oseltamivir (Tamiflu) and zanamivir (Relenza). Currently the CDC maintains a stockpile of these agents composed of 80 % oseltamivir and 20% zanamivir. Should a pandemic be declared and with a virus sensitive to the neuraminidase inhibitors, the CDC will release ~950,000 courses of neuraminidase inhibitor antivirals to the Commonwealth. The current guidance from CDC restricts the use of antiviral therapy for treatment purposes only. The antivirals cannot be used for force protection or for post exposure prophylaxis. The MDPH has identified ~235,000 courses of neuraminidase inhibitor antiviral agents from the CDC stockpile for distribution to hospitals for treatment of patients admitted to hospitals and for hospital staff and immediate family members of staff who contract the influenza.

MDPH will permit hospitals wanting to purchase antiviral agents as partial preparation for a pandemic to use of up to 5% of ASPR grant funds for the purchase of such antiviral agents if certain pre - conditions are met. Hospitals will only be eligible to make such antiviral purchase if they can demonstrate they have met all ASPR required Level 1 capabilities and confirm that they have a sufficient up to date antibiotic cache to treat staff and immediate family members of staff for three days.

4) Personal Protective Equipment Objectives

Overall goal: To maintain a sufficient statewide level of PPE readiness by ensuring hospital and pre-hospital healthcare providers are adequately equipped and trained in the use of PPE.

Objective #1: Obtain Accurate and Up-to-date Assessment of PPE Readiness of Hospital and Pre-hospital Response Forces

This year's hospital survey will include questions regarding the hospital's current par level of all levels of PPE and questions about risks identified in their HVA and how that relates to their current inventory of PPE. The survey will also include questions regarding number of individuals according to job classification that have been trained in PPE use including donning, doffing, and safety limitations. The MDPH HPP Hospital/EMS Planner will work with MDPH Office of EMS (OEMS) and regional EMS directors to best determine a way to assess private and public EMS current levels of PPE stock, needs and current level of training and needs.

Objective #2**:** Maintain Sufficient Hospital Par Level of PPE Equipment and Supplies

Provided the hospital has achieved full compliance with all Level 1 priority capabilities, hospitals will be allowed to utilize ASPR funding to maintain or supplement their PPE stock as needed.

Objective #3: Enable Hospital and Pre-hospital Responders and Receivers to be Trained in the Proper, Safe Use of PPE

MDPH will continue to provide competency based PPE training through our partnership with DFS in the development of delivery of PPE classes. The following courses will continue to be offered during this grant period:

- Hospital Personal Protective Equipment and Decontamination Program is a two-day, twelve-hour program for hospital personnel.
- EMS Personal Protective Equipment and Decontamination Program is a two day, twelve hour program for fire service, third service or private service EMS personnel.

- On-line EMS Hazardous Materials Awareness and Incident Command System Program is an on line web-based course, targeted for fire service, third service and private service EMS providers. This program has been revised to be NIMS compliant for the ICS 100 requirement.
- Hospital Personal Protective Equipment and Decontamination Refresher is a one-day, six-hour competency based refresher program, designed to review and evaluate key components of the full twelve-hour HPPE program.
- EMS Personal Protective Equipment and Decontamination Refresher is a one-day, six-hour competency based refresher program, designed to review and evaluate key components of the full twelve-hour EMS PPE program.
- Hospital Personal Protective Equipment and Decontamination Refresher Instructor Training Program: is a two day, twelve hour training program, targeted toward hospital educators who wish to provide their internal facility refresher program.

Additionally, due to the high interest and effectiveness of train the trainer programs, DFS will add the following courses during this grant period:

- EMS Personal Protective Equipment and Decontamination Instructor Training Program: will be designed as a three-day, 18-hour program. Upon completion of this program, participants will have the knowledge and skills to teach the initial 2-day PPE/Decontamination training to EMS personnel.
- Hospital Personal Protective Equipment and Decontamination Instructor Training Program: will be designed as a three-day, 18-hour program. Upon completion of this program, participants will have the knowledge and skills to teach the initial 2-day PPE/Decontamination training to hospital personnel.

5) Decontamination Objectives

Overall goal: To maintain a statewide approach and plan for the protection of the healthcare infrastructure due to threats caused by a surge of patients contaminated as a result of a release of hazardous materials such as a, chemical, biological, improvised explosive and/or radiological incident.

Objective #1: Ensure that Hospital, Fire and EMS First Responders and Receivers are Sufficiently Trained to Maintain High Levels of Readiness for Responses Requiring Deployment and Operation of an MDU

Deployment of an MDU or any type of decontamination activity requires the use of Personal Protective Equipment (PPE) by responders and receivers. Therefore, individuals who will be involved in any type of decontamination operation must be competent and comfortable in both decontamination procedures and the use of PPE. As described above in the PPE section, MDPH will continue to offer combined PPE and Decontamination courses for hospital and EMS personnel.

Objective #2: Inventory and assess status of MDU components statewide

A comprehensive survey has been distributed to all MDU host agencies. Survey returns are anticipated early fall of ’07. The survey results will be analyzed by the HPP liaison to DFS Haz Mat and priorities will be determined. Those priorities will form the basis of developing plans needed for system modifications or improvements and help to further identify needs.

Objective #3: Document the evaluation of exercises involving the activation, utilization, communication and operation of MDUs under the principles of NIMS

To address the goal of maintaining a state of readiness, MOAs between MDPH and the MDU host agencies and hospitals require periodic exercises be conducted involving MDU operations. Such requirements will continue during this grant period. Additionally, on a quarterly basis, there will be activation/communication exercises conducted. The tests will simulate an MDU activation and response within a community in Massachusetts.
This year, in addition to exercise participation, hospital and fire department MOAs will explicitly require submission of exercise AARs and related improvement plans.

Evaluation

Tracking System for Funding

All vendor relationships are governed by regulation, specifically, Commonwealth of Massachusetts Regulation 801 CMR 21.00 Procurement of Commodities or Services. In addition this program's spending of federal funds are subject to Federal Audit Regulation A-133. All contractual agreements are governed by the Commonwealth's Terms and Conditions for Contractual Agreements.

These documents provide the tools for MDPH vendors and fiscal managers to meet the requirement to review vendor contract compliance. All spending is processed through the Office of the State Comptroller via the Massachusetts Management Accounting and Reporting System (MMARS). Post-expenditure, these funds are drawn from the federal government via PMS.

Specifically, and in addition to overall requirements, MDPH reviews all vendor invoices individually, in part, to ensure that services and items requested for reimbursement have been provided and delivered. This procedure will continue for all future prospective vendor invoices, as required through the Massachusetts Management Accounting and Reporting System, governed by the Commonwealth of Massachusetts Office of the State Comptroller, a division of the Commonwealth's Executive Office of Administration and Finance. All expenditures (of all funding sources) are governed, at a minimum, by state finance law of the Commonwealth of Massachusetts.

Vendor requests for payment must be made via invoice, reviewed and signed at the program level indicating internal review and acceptability of invoice and approval of payment against the contracted funding level. In addition to consistent audit of invoices, random audit of programmatic spending has occurred and will continue to occur, with record of these encounters maintained by MDPH administrators, for review by future audit teams.

All expenditures of the MDPH program are tracked via the Massachusetts Management Accounting and Reporting System referenced previously, and expenditures of the ASPR program will continue to be tracked through this system, as this system is the only available methodology for payment processing from all funding sources. The MMARS system will function as the automated accounting system and will serve as the base upon which ASPR expenditures are segregated and tracked through use of contract identifiers and subsequent payment reference

codes. In addition, an overlay system of the Massachusetts Department of Public Health, entitled FACS: Federal Fiscal Year Detail by Object Code also provides specific expenditure detail.

The Commonwealth's MMARS System is the statewide system of the Commonwealth, through which all encumbrance and expenditures are executed, and therefore is the system by which all fiscal reporting to the awarding authorities, has been, and will continue to be, made.

Expenditure Tracking of Partner Entities

Historically, the HRSA award to MDPH has required and directed allocation of funding via provision of contracts to hospital and healthcare partners. To allow this task to be executed expediently, while still maintaining government oversight of the grant funds, the utilization of the contracting system accomplished this goal. Each contractual agreement includes a reporting relationship established at contract engagement, requiring self-reporting of expenditures. These serve as one piece of aggregate financial data. These contracts contain a Memorandum of Agreement (MOA) that contains both the fiscal and programmatic performance measures and reporting requirements. Additionally, staff of this program and stationed in the field as hospital regional preparedness coordinators have conducted financial audit of expenditures, utilizing HRSA funding, and have conducted these reviews on-site at hospitals, including review of purchase orders and reporting on completion of tasks, both from a fiscal and programmatic perspective

Statistical Information Gathering

A contractor is engaged annually to conduct a statewide survey. The purpose of the survey is to gather healthcare specific and aggregate data, which allows accurate and timely information to be reported both mid-annually and annually, for the Commonwealth's submission of performance measures and data elements reporting. The hospital MOAs for ASPR 2007 will contain the requirements for reporting of programmatic deliverables such as NIMS compliance, submission of mutual aid agreements, HVAs, fatality management plans, hospital evacuation plans, training and exercise rosters and emergency preparedness documents. The online Massachusetts HAvBED reporting system has programmable fields that allow MDPH to capture data and immediate requests for information on a 24/7 basis. Regional hospital coordinators perform program monitoring when meeting with hospitals during the course of the contract period. The annual fiscal audit referenced above will include a program review of MOA deliverables and performance measures in FFY 2007.

Program Monitoring

Level One Sub-Capabilities

1) Interoperable Communication System Evaluation

Weekly Testing and Exercising of the MA Hospital Emergency Preparedness Communications System - MDPH conducts weekly drills of the various elements of the communications system in order to increase participation, retain membership, increase drill compliance and to address any issues or difficulties with the system's use. MDPH

must schedule group and/or individual training sessions for those that may need assistance with any components of the system.

2) Bed Tracking System Evaluation

Testing Code - Whenever new code is written for the MA Hospital Capacity Website, it is loaded and tested on a development server. There are several user types for this application, including Central Administrator, CMED and Hospital user. All login types are assessed via testing protocols to ensure all website functionality is correct and working to acceptable standards prior to code being loaded to the live site. Both programmer and the MDPH Communications Coordinator run through the testing protocols prior to using new elements on the system.

Reporting Compliance – In order to increase participation in any bed count and inventory requests, MDPH conducts monthly Hospital Capacity Website drills. A message is sent out via the HHAN and Hospital Preparedness Listserv to notify hospital and EMS users of the drill. Drill results are disseminated to hospitals and MDPH staff troubleshoots issues to increase compliance. MDPH will incorporate the RSS feeds, mobile device applications and HHAN integration with any drills and exercises using the Hospital Capacity Website. MDPH will schedule group and individual training sessions for those that may need assistance with the new Hospital Capacity Website applications.

3) ESAR-VHP System Evaluation - In addition to evaluation from ASPR/ESAR-VHP program, MDPH hopes to evaluate the MSAR program and its efforts to recruit and retain volunteers by seeing an increase in the number of volunteers who have completed the application and training and who have kept their information up to date. In addition, we hope to see an increase in the number of MSAR volunteers attending trainings and will continue to track the various existing pathways (MSAR Course Evaluation, MSAR emails, hospital and regional contacts) to monitor feedback about the program. In addition, the program will test its capabilities by designing and implementing a disaster response exercise.

4) Fatality Management Plans Evaluation - During grant year FFY07, we plan to meet this capability by assuring that 100% of our hospitals have fatality plans in place that are known to their community and response partners, review and recommendations for revision of the state and Logan airport fatality plans, and the development of mass fatality tool kit for local public health and communities. We anticipate exercising the plans in FFY08.

5) Hospital Evacuation Plans Evaluation - Evaluation of the success of the projects will occur through regional tabletop exercises and multi regional functional exercises, which will include formal AARs. Regional coordinators will work with the hospitals to assist them review their plans and gaps identified in after action reporting and assist in developing corrective action plans. The cycles of plan, exercise, evaluate, revise will be ongoing and the coordinators will revisit the status of corrective action plans at their monthly regional meetings.

Level Two Sub-Capabilities

1) Alternate Care Sites (ACS) Evaluation - All clusters will be finalized and100% of hospitals will have conducted an ESCU exercise (workshop, seminar, TT, or functional) by the end of the

FFY07. An allocation plan for the state funded resources will be developed based on hospital and community capacity to store and maintain the materiel.

2) Mobile Medical Assets Evaluation – Identification of one suitable site per region for the the deployment of a Federal Medical Station.

3) Pharmaceutical Caches Evaluation - Successful completion of the objectives above shall be assessed by collection of survey results and participation in the on-line inventory reporting exercises.

4) Personal Protective Equipment Evaluation - The success of PPE objectives will be measured by hospital survey results, class enrollment levels and class participant evaluations.

5) Decontamination Evaluation - The decontamination program will be evaluated through the tracking of the activities performed by the fire departments and their response partners during the grant period, analysis of exercise AARs, and survey results.

Maintenance of Funding

Massachusetts has no state budget allocation for "healthcare preparedness". Public health and healthcare programs directed to emergency preparedness are 100% federally funded.

There are many core public health programs which deal in whole or in part with public health and health care, and to emergent events that impact the health of the public. None were established with an emergency preparedness requirement or focus. Legislative initiatives have been proposed to establish state funding for public health emergency preparedness initiatives, but to date none have been successful.

Historical funding awards, from FFY2002 to date, and made by the Health Resources and Services Administration to the Commonwealth of Massachusetts, have been utilized to create new preparedness programs and initiatives in the Commonwealth of Massachusetts, and these programs/initiatives have been funded solely, or 100%, by the federal awards.

Should the federal preparedness funding for hospitals and healthcare entities become discontinued, the services and activities supported by the federal preparedness funding would cease to exist.

Work Plan/Timeline

Why	What - Objective	Who – Lead Staff Person	Where	When	How Much – Corresponding Budget Line
Level 1, 2, Overarching	Hospital MOA funding to meet Level 1 and Level 2 and Overarching sub capabilities and Objectives listed below	Budget Director, Hospital Preparedness Coordinator, and Deputy Hospital Coordinator	MDPH fiscal MDPH HPP staff Hospitals	Q1-Q2	$4,574,193 Hospital contracts
Interoperable Communications					
Level 1 Interoperable communications	Statewide Communications Interoperability Plan (SCIP) development	Program Director	MDPH and Executive Office of Public Safety	Q1	$60,000 ISA to EOPS
Level 1 Interoperable communications	Maintenance Flash Drives and Nextel/Verizon Hospital Network	Communications and Information Technology Coordinator	MDPH and MHA	Q1-Q4	$289,072 (MHA contract), and service providers: $18,000, $14,000, $7,040, $7,199
Level 1 Interoperable communications	Maintenance Listserv	Communications and Information Technology Coordinator	MDPH	Q1-Q4	Service provider: $4,000
Level 1 Interoperable communications	Maintenance Healthcare Facility Notification HHAN	Communications and Information Technology Coordinator	MDPH	Q1-Q4	$75,000
Level 1 Interoperable communications	Maintenance Satellite Phone Network	Communications and Information Technology Coordinator	MDPH	Q1-Q4	Part of $140,250 SSG contract, and service providers: $19,966 MSV, $80,788.73 Globalstar
Level 1 Interoperable communications	Operationalize VoIP	Communications and Information Technology Coordinator	MDPH	Q1	Part of $140,250 SSG contract.

Bed Tracking					
Level 1 Bed tracking	System Maintenance	Communications and Information Technology Coordinator	MDPH	Q3 – Q4	Part of CSC contract $51,604
Level 1 Bed tracking	ED Capacity	Communications and Information Technology Coordinator	MDPH	Q1	Part of TSG contract $43160
Level 1 Bed tracking	Failover Server	Communications and Information Technology Coordinator	MDPH	Q3-Q4	Part of CSC $51,604 and TSG $43,160 contracts
Level 1 Bed tracking	HHAN Integration, RSS Feeds and Mobile Device Support	Communications and Information Technology Coordinator	MDPH	Q2-Q3	Part of $43,160 TSG contract
Level 1 Bed tracking	GIS Mapping	Communications and Information Technology Coordinator	MDPH	Q4	Part of $43,160 TSG contract
Level 1 Bed tracking	Website Security	Communications and Information Technology Coordinator	MDPH	Q2	Part of $43,160 TSG contract
ESAR-VHP					
Level 1 ESAR-VHP	Ongoing and expanded recruitment MSAR and MRC	MSAR Program Coordinator/ MMS/ IT Coordinator	MDPH/MMS	Q1-Q4	Part of $125,000 MMS and $238,000 RVA contracts and $103,500 DMH ISA
Level 1 ESAR-VHP	Expansion of MSAR Partner Base MSAR and MRC coordination	MSAR Program Coordinator/MMS Staff	MDPH/MMS	Q1-Q4	Part of $125,000 MMS and $238,000 RVA contracts and $103,500 DMH ISA
Level 1 ESAR-VHP	MSAR Visibility	MSAR Program Coordinator/MMS Staff	MDPH/MMS	Q1-Q4	Part of $125,000 MMS and $238,000 RVA contracts and $103,500 DMH ISA
Level 1 ESAR-VHP	Implement background checks	MSAR Program Coordinator/ IT Coordinator	MDPH	Q1-Q4	Part of $350,983.20 MSAR and Hospital Capabilities enhancements

ESAR-VHP (cont.)					
Level 1 ESAR-VHP	Develop and implement volunteer retention strategy	MSAR Program Coordinator/MMS Staff	MDPH/MMS	Q1-Q4	Part of $125,000 MMS contract
Level 1 ESAR-VHP	Develop and implement exercises to test deployment	MSAR Program Coordinator/ IT Coordinator	MDPH	Q1-Q2	Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 1 ESAR-VHP	Develop training opportunities for MSAR and MRC volunteers	MSAR Program Coordinator	MDPH/DelValle Institute, MCOL	Q2-Q4	Part of $75,000 DelValle and $50,000 MCOL contracts
Level 1 ESAR-VHP	Add ESAR VHP professions to MSAR database	MSAR IT Coordinator/Program coordinator	MDPH	Q1-Q2	Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 1 ESAR-VHP	Define and develop system activation and deployment functionality	MSAR IT Coordinator/ Program coordinator/Program management	MDPH	Q1-Q3	Part of $50,000 HHAN enhancement
Level 1 ESAR-VHP	Develop MSAR/HHAN interfaces	MSAR IT Coordinator/HHAN IT Staff	MDPH	Q2	Part of $50,000 HHAN enhancement
Level 1 ESAR-VHP	Increase access of information for our participating partners	MSAR IT Coordinator	MDPH	Q3-Q4	Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 1 ESAR-VHP	Exercises to test system availability and capacity.	MSAR IT Coordinator/ Program coordinator/ Program management/ various stakeholders and volunteer community	MDPH	Q1-Q4	Part of $350,983.20 MSAR and Hospital Capabilities enhancements

Fatality Management					
Level 1 Fatality Management	Expert panel review of plans	Program Director	MDPH	Q1-Q4	Part of $100,000 fatality management plan contract
Level 1 Fatality Management	Fatality management toolkit	Hospital Preparedness Coordinator/Deputy	MDPH	Q1\3-Q4	Part of $100,000 fatality management plan contract and Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 1 Fatality Management	Pandemic fatality planning	Hospital Preparedness Coordinator/Deputy	MDPH	Q2	Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 1 Fatality Management	At risk populations	Hospital Preparedness Coordinator/Deputy	MDPH	Q1-Q4	Part of $100,000 fatality management plan contract and $103,500 DMH ISA
Hospital Evacuation					
Level 1 Evacuation	Regional tabletop exercises	Deputy Hospital Preparedness Coordinator	Hospitals	Q3–Q4	Part of $280,000 exercise contract
Level 1 Evacuation	Statewide functional exercise	Deputy Hospital Preparedness Coordinator	Hospitals	Q4	Part of $280,000 exercise contract
Level 1 Evacuation	Evacuation ICS training program	Training liaison to DFS	DFS	Q1-Q4	Part of $140,000 DFS ISA
Level 1 Evacuation	Evacuation instructor training program	Training liaison to DFS	DFS	Q1 -Q4	Part of $140,000 DFS ISA

Alternate Care Sites					
Level 2 ACS	ISCU exercise toolkit	Hospital Preparedness Coordinator	MDPH	Q1-Q4	$50,000 vendor contract
Level 2 ACS	Statewide best practices conference	Hospital Preparedness Coordinator/Deputy	TBA	Q	$110,408.04 vendor contract
Level 2 ACS	Cluster planning	Hospital Preparedness Coordinator/Deputy	MDPH and hospitals	Q1-Q4	Part of $350,983.20 MSAR and Hospital Capabilities enhancements
Level 2 ACS	At risk populations ISCU/cluster planning	Hospital Preparedness Coordinator/Deputy	MDPH and MDMH	Q1-Q4	Part of $103,500 DMH ISA
Level 2 ACS	At risk populations/Mini-grant program	Hospital Preparedness Coordinator/EP Bureau Staff	MDPH	Q1-Q4	$100,000 mini-grant program

Pharmaceutical Caches, Personal Protective Equipment and Decontamination					
Level 2 Pharmaceutical cache	Hospital reporting/tracking	Deputy Hospital Preparedness Coordinator and Communications/IT Coordinator SNS Coordinator	MDPH and hospitals	Q1-Q4	Part of TSG $43,160 contract
Level 2 PPE Level 2 Decontamination	Continuation of competency based hospital and EMS PPE/decon trainings	Training liaison to DFS Hospital/EMS Coordinator	DFS and hospitals	Q1-Q4	Part of $140,000 DFS ISA
Level 2 PPE Level 2 Decontamination	Development of EMS and hospital PPE/decon. Instructor training programs	Training liaison to DFS Hospital/EMS Coordinator	DFS	Q1-Q4	Part of $140,000 DFS ISA

Training and Exercises					
Training and exercises	Advanced Burn Life Support training for hospital and EMS	Training liaison to DFS Hospital/EMS Coordinator Hospital Preparedness Coordinator	hospitals	Q1-Q4	$39,600
Training and exercises	Boston Marathon MCI exercise	Hospital Preparedness Coordinator Hospital/EMS Coordinator	hospitals	Q3	$50,000 vendor contract
Training and exercises	Radiation dispersal exercise	Liaison to DFS Haz Mat	MDPH Radiation Control Program, DFS	TBA	$15,000